Finalyse

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REGULATORY BRIEF NOVEMBER 2024

Contents

Abbreviations Institutional Framework Regulatory Calendar Explanatory Note & Legend Trending Topics

BANKING

Banking Regulatory Time Managing IRRBB in a vola Differences between UK Framework Supervision **Risk Management** Recovery & Resolution Market Environment Climate Risk Data Management Governance Enhancing PD estimation tion of the Z-score appro

INSURANCE

Insurance Regulatory Tim Supervision Risk Management Market Environment Climate change risk mana ORSA Asset Management Regul Supervision

CROSS-SECTOR

ASSET MANAGEMENT

Cross-Sector Regulatory Supervision Market Environment Climate Risk Reporting & Disclosure

CONTACT

Finalyse Partners and office



Our purpose

Our aim is to support our clients incorporating changes and innovations in valuation, risk and compliance. We share the ambition to contribute to a sustainable and resilient financial system. Facing these extraordinary challenges is what drives us every day.

Regulatory Brief

The RegBrief provides a catalogue of policy updates impacting the financial industry. Emphasis is made on risk management, reporting and disclosure. It further covers legislation on governance, accounting and trading, as well as information on the current business environment.

Note: The Cross-Sector chapter includes regulatory updates that may affect multiple industries.

Data: 1 July 2024 - 30 September 2024

	pp. 4-5
	p. 6
	p. 7
	p. 8
	р. 9
eline atile intense rates environment & EU implementation of Basel 3.1	pp. 12-17 pp. 18-25 pp. 26-34 pp. 36-38 pp. 39-41 p. 42 p. 43 p. 44 p. 44
n under IFRS 9: A detailed explora- bach	p. 44 pp. 46-50
neline	pp. 54-55 p. 56 p. 57
agement: Lessons learned from	p. 57 pp. 58-63
latory Timeline	p. 66 p. 67
Timeline	p. 70 p. 72 p. 72 p. 73 p. 73
ces information	pp. 74-75

Abbreviations

- 4 -

Abbreviations

AIFMD	Alternative Investment Fund Managers	ECB	European Central Bank	IBIP	Insurance-Based Investment Product
A N A A	Advanced Measurement Approach	ECL	Expected Credit Loss	ICAAP	Internal Capital Adequacy Assessment-
		EDIS	European Deposit Insurance Scheme	10.0	
AML	Anti-Money Laundering	EEA	European Economic Area	IDD	Insurance Distribution Directive
AT1	Additional Tier 1	EEAP	European Electronic Access Point	IFRS	International Financial Reporting Stand- ards
BCBS	Basel Committee on Banking Supervision	FFTA	European Free Trade Association	ΙΙ ΔΑΡ	Internal Liquidity Adequacy Assessment
BIS	Bank of International Settlements			12/04	Process
BMR	Benchmarks Regulation	EIOPA	Pensions Authority	IORP	Institutions for Occupational Retirement Provision (Directive)
BRRD	Bank Recovery and Resolution Directive	ELTIF	European Long-Term Investment Fund		International Organisation of Securities
CCP	Central Counterparty	EMIR	European Markets Infrastructure	10300	Commissions
CET 1	Common Equity Tier 1		Regulation	IRB	Internal Rating Based Approach
CFR	Core Funding Ratio	ESMA	European Securities & Markets Authority	IRRBB	Interest Rate Risk in the Banking Book
СМИ	Capital Markets Union	ESRB	European Systemic Risk Board	ITS	Implementing Technical Standards
Counci	Council of the European Union	EU	European Union	JCESA	Joint Committee of European Supervisory
CDM	Committee on Deuments & Market	EuSEF	European Social Entrepreneurship Fund	UCLON	Authorities
CPMI	Infrastructures	EuVECA	European Venture Capital Fund	KID	Key Information Document
CRA	Credit Rating Agencies (Regulation)	FINREP	Financial Reporting	LCR	Liquidity Coverage Ratio
CRD	Capital Requirements Directive	FICOD	Financial Conglomerates Directive	LEI	Legal Entity Identifier
CRR	Capital Requirements Regulation	FRTB	Fundamental Review of the Trading Book	LGD	Loss Given Default
CSD	Central Securities Depository	FSB	Financial Stability Board	LR	Leverage Ratio
СТР	Consolidated Tape Provider	FX	Foreign Exchange	LSI	Less Significant Institution
CVA	Credit Valuation Adjustment	GAAP	Generally Accepted Accounting Principles	MCD	Mortgage Credit Directive
DGS	Deposit Guarantee Scheme	G-SIB	Global Systemically Important Bank	MiFID	Markets in Financial Instruments Directive
DPM	Data Point Model	G-SII	Global Systemically Important Institution	MiFIR	Markets in Financial Instruments
EBA	European Banking Authority	IAS	International Accounting Standards		Margare Market Fund
ECAI	External Credit Assessment Institution	IASB	International Accounting Standards Board	MS	Money Market Fund Member States

NCA	National Competent Authority
NPL	Non-Performing Loan
NSFR	Net Stable Funding Ratio
OSII	Other Systemically Important Institution
PAD	Payment Accounts Directive
Parl	European Parliament
PD	Probability of Default
PRIIPs	Packaged Retail and Insurance-Based Investment Products (Regulation)
PSD	Payment Services Directive
REFIT	Regulatory Fitness & Performance Programme
RTS	Regulatory Technical Standards
RWA	Risk-Weighted Asset
SFT(R)	Securities Financing Transaction (Regulation)
SI	Systematic Internaliser
SMA	Standardized Measurement Approach
SREP	Supervisory Review & Evaluation Process
SRM	Single Resolution Mechanism
SSM	Single Supervisory Mechanism
STC	Simple, Transparent & Comparable (Securitisation)
TLAC	Total-Loss Absorbing Capacity
TR	Trade Repository
UCITS	Undertakings for Collective Investment
	IT ITALISTETADLE SECURICES
UPI	Unique Product Identifier

Institutional Framework



The international organisations on the top row set global standards for their respective members. These global norms are not binding, but have to be further translated in national (European) legislation.

European legislation is proposed by the Commission and, after political negotiations, voted in the European Parliament and the Council of Ministers. Adopted regulations and decisions are directly applicable to EU member states, while directives have to be translated into national law before they apply. The technical details are fine-tuned by the supervisory authorities: EBA, ESMA and EIOPA.

Finally, where necessary, national governments and supervisors translate and supplement the international and European policies for the domestic market.

Regulatory Calendar

2024 Q4

Sustainable Finance

Thematic review To be aligned with supervisory expectations, including integration of C&E risks in stress testing framework and ICAAP Application date: 31 Dec 2024

Solvency II

Draft RTS Reassessment of the Natural Catastrophe risk standard formula capital charges Document release: tbd

ICS

International Standards Planned adoption of ICS Application date: 24 Dec 2024

2025 Q1

CRR

Regulation Most of CRR 3 provisions are intended to come into force Application date: 1 Jan 2025

Basel

Standards Prudential treatment of banks' exposures to cryptoassets Application date: 1 Jan 2025

2025 Q3

Stress Test

Results EBA publication of the 2025 EU-wide stress test results Document Release: July 2025 CRR

ITS

On joint decision process for internal model applications Document Release: tbd

RTS

On criteria that institutions shall use to assign offbalance-sheet items, constraining factors for UCC and notification process Document Release: tbd

Guidelines To specify proportionate diversification methods for

retail definition Document Release: tbd

2028 Q1

Basel

Standards

Basel IV capital floor implementation end postponed from 1 Jan 2027 Implementation deadline: 1 Jan 2028

- 6 -

Explanatory Note & Legend

- SCOPE Regulatory updates include EU legislation, international standards and other relevant publications from the European authorities. They are gathered from official publications and institutions' official communication channels.
- STATUS Updates are labelled with a symbol which indicates the status of the regulation at the time of publication:



Consultation: The first circle is filled when an official draft is open for public consultation.



Pending: The second circle is filled when a final proposal needs to be adopted by a vote or non-objection.



Effective: The third circle is filled when a regulation is final and adopted. There might be a certain delay until it applies.



Informative: This symbol indicates purely informative documents, such as briefings and reports.

Click on these links to open the original documents



Climate Risk EIOPA (Consultation Paper)

Prudential treatment of Sustainability Risks

The EIOPA has initiated a consultation on the prudential treatment of sustainability risks, marking the second phase of its approach under the Solvency II Directive. This directive mandates EIOPA to evaluate whether a specialized prudential treatment for assets or activities linked to environmental or social objectives is justified. The consultation aims to assess the potential for dedicated prudential treatment in response to risks associated with environmental and social factors.

Release date: 2023-12-13 Consultation End:2024-03-24

eiopa.europa.eu







1. BANKING PACKAGE - CRR3/CRD 6

set to come into force in 2025 with a few exceptions. applicable.

The publication of the finalised texts provides banks with much-needed clarity on the regulatory framework, enabling them to proceed with implementation. At the same time, certain aspects remain subject to further specification through technical standards, which will address unresolved details and enhance practical guidance. While the timeline remains challenging—particularly in areas such as reporting—the finalised framework and forthcoming technical standards together establish a robust foundation for compliance ahead of the 2025 and 2026 deadlines.

2. SUSTAINABILITY AND CLIMATE RISK

The regulatory landscape for climate risk management has evolved rapidly, with major frameworks like the Corporate Sustainability Reporting Directive (CSRD), updated European Banking Authority (EBA) Pillar 3 requirements, and ECB guidelines shaping the future of risk management for financial institutions. These measures underscore the recognition of climate risk as a core financial stability issue, requiring immediate and robust action.

Taxonomy and incorporates stringent ESG criteria.

3. ECB GUIDE ON RISK DATA AGGREGATION AND RISK REPORTING

In 2016 ECB launched thematic review on effective а Data (RDARR). Risk Aggregation and Risk Reporting The results of the assessment showed the sample of institutions had not followed fully the guidelines set by BCBS239 principles. In fact as of 2023 ECB has concluded that no substantial or timely progresses have been made to fully adhere to BCBS239 and achieve high standards within RDARR areas Published in May 2024, The ECB Guide provides a clear list of 7 areas an institution should target their multi-year roadmaps to achieve an effective RDARR; from Data Management Bodies, Data Governance Framework and its scope, Integrated Data Architecture, Data Quality Management to Timeliness of reporting and effective implementation program.



The banking institutions are getting ready for the implementation of CRR 3 and CRD VI, which were adopted and published on 31st May 2024. The updated banking package is

In particular, the rules for calculating banks own funds requirements for market risk will only take effect from January 2026, aligning with timelines in jurisdictions such as the US and the UK. Until then, the current market risk provisions under CRR 2 will remain

Effective in 2024, the CSRD mandates broader sustainability disclosures, requiring banks to report on climate-related risks across their value chains. This aligns with the EU

The ECB has strengthened its supervisory expectations, requiring alignment with enhanced Pillar 3, including stress testing, scenario analysis, and climate risk integration into governance, ICAAP, ILAAP and risk frameworks. Similarly, the EBA emphasizes ESG risk integration and materiality assessments aligned with EU Taxonomy standards.

With 2025 fast approaching, institutions must accelerate efforts to meet these regulatory demands and fortify resilience amid growing environmental and regulatory pressures.



Banking

pp. 12-17	Banking Regulatory Tir
pp. 18-25	Article: Managing IRRB
pp. 26-34	Article: Differences bet
	Framework
pp. 36-38	Supervision
pp. 39-41	Risk Management
p. 42	Recovery & Resolution
p. 43	Market environment
p. 44	Climate Risk
p. 44	Data Management
p. 44	Governance
pp. 46-50	Article: Enhancing PD e
	ration of the Z-score a

11 -

meline BB in a volatile interest rates environment etween UK & EU implementation of Basel 3.1

estimation under IFRS 9: A detailed exploapproach

Banking Regulatory Timeline

2024 Q4 CRR

RTS

Establishing a risk taxonomy of OpRisk loss events and on mapping Business Indicator components (BIC) to FINREP Document release: tbd

Report

On availability of data and feasibility of introducing a standardised methodology Document release: 31 Dec 2024

Stress Test

Preparatory Work EBA Preparation and methodological work for 2025 EU-wide stress test exercise Document release: tbd

Analysis

EBA One-off fit-for-55 climate scenario analysis Document release: tbd

2025 Q1 CRR

Regulation Most of CRR 3 provisions are intended to come into force Application date: 1 Jan 2025

Guidelines

Updates to regulatory products, additional supervisory guidance, and implementation of the EBA Heatmap action plan for IRRBB Document Release: tbd

RTS 2024 benchmarking report on IRB models Document Release: tbd

RTS

RTS to define the term 'equivalent legal mechanism' ensuring timely completion of property under construction Document Release: tbd

Report 2024 Benchmarking Report on Market Risk models Document Release: tbd

RTS On CVA for SFTs Document Release: tbd

RTS On the Calculation and aggregation of Crypto-Exposure values Document Release: tbd

RTS On the elements to calculate the BI components Document Release: tbd

Covered Bonds Directive Q&As Q&A on credit risk, large exposures, and securitisation and covered bonds Document Release: tbd

CRD

Guidelines Final Guidelines on ESG Risk Management Document Release: tbd

Basel

Standards Prudential treatment of banks' exposures to cryptoassets Application date: 1 Jan 2025

2025 Q2

CRR Report Joint Commitee spring risk report Document Release: tbd

Report **Risk Assessment report** Document Release: tbd

CRD

Guidelines On output floor and impact on the SREP Application date: 1 Jan 2025

ITS

ITS on joint decision process for internal model applications Document Release: tbd

Guidelines GL to specify proportionate diversification methods for retail exposures Document Release: tbd

Guidelines

GL specifying the methodology institutions shall apply to estimate IRB-CCF Document Release: tbd

RTS

Establishing a risk taxonomy of OpRisk loss events Document Release: tbd

RTS

On the adjustments to the loss Data Set Document Release: tbd

RTS On the calculation of aggregated losses Document Release: tbd

Banking Regulatory Timeline

2025 Q3

Stress Test Results EBA publication of the 2025 EUwide stress test results Document Release: July 2025

Guidelines

On Institutions climate scenario analysis and Stress test Document Release: tbd Guidelines On supervisory climate Stress test Document Release: tbd

CRR

ITS On joint decision process for internal model applications Document Release: tbd

RTS

On criteria that institutions shall use to assign off-balance-sheet items, constraining factors for UCC and notification process Document Release: tbd

Guidelines

To specify proportionate diversification methods for retail definition Document Release: tbd

RTS

Specifying the term "equivalent legal mechanism" in place to ensure that the property under construction will be finished within a reasonable time frame Document Release: tbd

Guidelines

Specifying the terms substantial cash deposits, appropriate amount of obligor-contributed equity and significant portion of total contracts Document Release: tbd

Guidelines

On the definition of default, in particular for diminished financial obligation Document Release: tbd

RTS short positions Document Release: tbd

RTS On supervisory delta for commodity prices Document Release: tbd

RTS banking book Document Release: tbd

RTS On risk factor modellability Document Release: tbd

RTS On profit and loss attribution Document Release: tbd

RTS On Crypto Document Release: tbd

RTS On disclosure requirements/ disclosure formats and instructions Document Release: tbd

ITS Specifying uniform disclosure formats for ESG risks Document Release: tbd

Report

On the completeness and appropriateness of the relevant CRR definitions and provisions on consolidation Document Release: tbd

On the specification of long and

On FX and commodity risk in the

Report

On the appropriate calibration of risk parameters applicable to specialised lending exposures under the IRB Document Release: tbd

RTS

On criteria for high quality project finance specialised lending exposures Document Release: tbd

Report

Joint Committee autumn risk report Document Release: tbd

ITS

On supervisory reporting for ESG risks Document Release: tbd

ITS

On disclosure requirements-Implementation of CRR3/CRD6 changes in Pillar 3 framework Document Release: tbd

CRD

Guidelines On specific publication requirements Document Release: tbd

Report

On whether any financial sector entity in addition to credit institutions should be exempted from the requirement to establish a branch for the provision of banking services by thirdcountry undertakings Document Release: tbd

Banking Regulatory Timeline

Guidelines

On artificial cash flow and discount rate Document Release: tbd

Securitisation Regulation

Report JC Report on Securitisation Framework under 44 of SECR Document Release: tbd

RTS On Data inputs Document Release:tbd

BRRD

Report RTS on Resolution planning Document Release: tbd

SFDR

Report 2025 Report under article 18 SFDR Document Release: tbd

Report

On effective riskiness, framework modifications, and their impact on financial stability and bank lending Document Release: tbd

2025 Q4

CRR

Guidelines On effective riskiness, additional modifications to the framework and effects on financial stability and bank lending Document Release: tbd

RTS On Structural FX Document Release: tbd

RTS On the exclusion of Losses Document Release: tbd

RTS

On the Risk Management Framework Document Release: tbd

RTS On the Materiality of extensions and changes for the SA-CVA Document Release: tbd

RTS On the assessment methodology for SA-CVA

Document Release: tbd

RTS On the assessment methodology for the FRTB-SA Document Release: tbd

2026 Q1

CRR RTS

Specifying types of factors to be considered for risk weights for exposures secured by mortgages on immovable property Document Release: tbd

RTS

Specifying the conditions for assessing the materiality of the use of an existing rating system for other additional exposures and changes to rating systems under the IRB approach Document Release: tbd

Guidelines On artificial cash flow and discount rate Document Release: tbd

RTS On data inputs of Market Risk Document Release: tbd

RTS

On the elements to calculate the business indicator components Document Release: tbd

— 14 —

ITS

On mapping BIC components to FINREP Document Release: tbd

RTS On adjustments of the BIC Document Release: tbd

RTS Establishing a risk taxonomy of operational risk loss events Document Release: tbd

CRD

ITS Templates for IPU monitoring threshold Document Release: tbd

RTS

On the minimum information to be provided for assessing QHs Document Release: tbd

RTS On booking arrangements TCBs Document Release: tbd

ITS

On minimum common reporting of TCBs Document Release: tbd

ITS

On mechanisms of cooperation and functioning of supervisory colleges for thirdcountry branches Document Release: tbd

Guidelines

On minimum standards and reference methodologies for the identification, measurement, management and monitoring of ESG risks Document Release: tbd

Guidelines

Joint guidelines on methodologies for the stress testing of ESG risks Document Release: tbd

Banking Regulatory Timeline

2026 Q3

CRD RTS

On the list of information to be submitted by the proposed acquirer, the assessment criteria and the process for the assessment of the acquisition of material holdings and mergers

Document Release: tbd

ITS

On the cooperation between CAs for the acquisition of material holdings Document Release: tbd

Guidelines

Joint EBA ESMA GLs on the assessment of the suitability of members of the MB taking into account the changes introduced re the assessment of the MB and KFHs both by institutions and CAs Document Release: tbd

CRR

RTS On the calculation of aggregated losses above 750k and unduly burdensome exemption Document Release: tbd

RTS

Specifying the assessment methodology for compliance with the requirements to use the IRB

Document Release: tbd

RTS

On the categorisation to PF. OF and CF. and the determination of IPRE Document Release: tbd

RTS

On how to take into account the factors when assigning risk weights to specialised lending exposures Document Release: tbd

RTS On methodologies to assess the integrity of the assignment process and the regular and independent assessment of risks Document Release: tbd

RTS

On the methodologies to assess the integrity of the assignment process and the regular and independent assessment of risks Document Release: tbd

RTS

Specifying the methodology of an institution for estimating PD under Article 143 Document Release: tbd

Report

On the appropriate calibration of risk parameters applicable to specialised lending exposures under the IRB Document Release: tbd

Report

On the recognition of capped or floored unfunded credit protection Document Release: tbd

Report

On the impact of the new framework for securities financing transactions in terms of capital requirements Document Release: tbd

RTS On structural FX for Market Risk Document Release: tbd

RTS On conditions for not counting overshootings Document Release: tbd

RTS On extraordinary circumstances for prudent valuation Document Release: tbd

RTS On SETs for CVA risk Document Release: tbd

Report

On the implementation of international standards on own funds requirements for market risk in third countries Document Release: tbd

2026 Q4 CRR

Guidelines Specifying the methodology institutions shall apply to estimate IRB-CCF Document Release: tbd

Report To the Commission on the consistency with the current measurement of credit risk

Document Release: tbd

RTS On the hypothetical portfolios of CIUs in the trading book Document Release: tbd

Report On the prudential treatment of securitisation transactions including the application of the output floor Document Release: tbd

2027 Q1

CRD Guidelines On internal governance of thirdcountry branches

Document Release: tbd

CRR Report On haircut floors for SFTs Document Release: tbd

Banking Regulatory Timeline

RTS

On the exclusion of losses Document Release: tbd

RTS On the adjustments to the loss dataset Document Release: tbd

RTS On the risk management framework Document Release: tbd

Guidelines

On the application of aggregate limits or tighter individual limits to exposures to shadow banking entities Document Release: tbd

2027 Q3 CRR RTS

On specifying further the conditions and criteria for assigning exposures to the IRB exposure classes Document Release: tbd

RTS

On the calculation of the riskweighted exposure amount for dilution risk of purchased receivables Document Release: tbd

RTS On comparable property Document Release: tbd

Report

On the appropriate calibrations of risk parameters associated with leasing exposures under the IRB approach Document Release: tbd

RTS

On net short credit and equity positions Document Release: tbd

Guidelines

On exceptional circumstances for the reclassification of a position Document Release: tbd

RTS On proxy spread Document Release: tbd

RTS On further technical elements for regulatory CVA Document Release: tbd

RTS On instruments appropriate to estimating PDs Document Release: tbd

Report On the feasibility of using gualitative and guantitative information Document Release: tbd

2027 Q4

CRR Report On the appropriateness of the treatment of exposures secured by mortgages on commercial property Document Release: tbd

Report

Intermediary report on the impact of the requirements on agricultural financing Document Release: tbd

Report

The contribution of non-banking financial intermediation to the Capital Markets Union Document Release: tbd

2028 Q1

BASEL Standards Basel IV capital floor implementation end postponed from 1 Jan 2027 Implementation deadline: 1 Jan 2028

CRR

Report On the use of insurance in the context of operational risk and the availability and quality of data when calculating their own funds requirements for operational risk Document Release: tbd

2028 Q3

CRD

Guidelines On monitoring operations between the third-country branches of the same head undertaking

Document Release: tbd

CRR

Guidelines On immateriality of size and risk profile of exposures Document Release: tbd

RTS

On the assessment methodology for the FRTB-SA Document Release: tbd

RTS

On the materiality of extensions and changes for the SA-CVA Document Release: tbd

Banking Regulatory Timeline

RTS

On the assessment methodology for the SA-CVA Document Release: tbd

2028 Q4

CRD Report

On the use of the waiver as envisaged in accordance with paragraph 3a as well as on the use of the power under point 1(b)(iii) of Article 4(1) of the CRR

Document Release: tbd

CRR

Report On the results of monitoring activity of specialised debt restructurers Document Release: tbd

Report

On the use of the transitional treatment and appropriateness of risk weights for exposures secured by residential property Document Release: tbd

Report

On transitional arrangements for unconditional cancellable commitments Document Release: tbd

2029 Q3

CRR Report On immateriality of size and risk profile of exposures Document Release: tbd

2029 Q4 CRD

Report With ECB on the application of paragraphs 1d to 1j and on their efficiency in ensuring that the fit and proper framework is fit for purpose taking into account the principle of proportionality Document Release: tbd

CRR

Report On the exemption from residual risks for hedging positions Document Release: tbd

2030 Q4 CRR Report

On the impact of the financing Document Release: tbd

2031 Q4

CRR Report Document Release: tbd

_____ 17 ____

requirements on agricultural

On operational risk ILDC

ARTICLE

Managing IRRBB in a Volatile Interest Rates Environment

Written by <u>Makram Merdas</u>, Finalyse Consultant

Reviewed by François-Xavier Duqué, Finalyse Principal Consultant

The recent rise in interest rates, following a long period of record lows, has been the fastest in decades. The ECB and the FED are now starting to decrease policy rates. Amid geopolitical tensions and economic uncertainties, a volatile interest rate market is likely to persist for an extended period. This will require banks to be cautious and proactive in managing their interest rate positions. While many banks have benefited from the increase in interest rates, a reversal of the tide could prove damaging if interest rate exposures are not well managed and hedged.

This article provides first a brief overview of the regulatory and organisational framework used by banks to manage the interest rate risk associated with banking activities. The article then proceeds to discuss the conventional measurement tools and explores various techniques and strategies used to manage and hedge a bank's interest rate risk.



The ALM Function and the ALCO

The IRRBB and ALM frameworks are key in navigating the uncertainties associated with the interest rate risk.

The so-called banking book houses the bank's traditional intermediation activities - as taking deposits and granting loans - and is structurally exposed to interest rate volatility. The regulatory framework that handles this risk is the "interest rate risk in the banking book" (IRRBB) standards. It refers to the current or prospective risk to the bank's capital and earnings, arising from adverse movements in interest rates. Fluctuations in interest rates change the economic value (EV) of the bank, because they affect the timing, the size and the discounting of the cash flows, whether on its assets, liabilities, or off-balance sheet instruments. Changes in interest rate also affect the bank's earnings or profitability by altering the income and expenses constituting the bank's socalled net interest income (NII).

Asset and Liability Management (ALM) covers a broader spectrum and refers to the practice of managing financial risks that arise from mismatches of asset and liabilities. In addition to interest rate risk management, ALM also deals with liquidity management and optimizing the balance sheet in terms of the bank's funding strategy or asset allocation.

Although banks differ in their organization, the ALM function is often responsible for managing IRRBB. At its head, the Asset and Liability Committee (ALCO) brings together the treasury, risk and finance departments, and possibly business lines managers. Its primary task is to establish and ensure the application of the ALM policy. In the context of IRRBB, the ALCO sets targets and limits for the key metrics based on the bank's risk appetite, and more broadly ensures that the bank is compliant with the IRRBB regulatory requirements, as briefly exposed below.

Regulatory Landscape

Basel Committee on Banking Supervision (BCBS)

IRRBB is part of Pillar 2 in the Basel capital

framework. Basel Committee issued a set of principles in 2004 and updated them in 2016.

The Basel standards are concerned with properly identifying interest rate risks and distinguishes three main sub-types. Gap risk (also known as repricing risk) occurs when interest ratesensitive assets and liabilities reprice or mature at different times. For example, a long-term fixed-rate mortgage loans funded by short-term deposits. Basis Risk arises from the imperfect correlation between changes in interest rates for financial instruments that have similar tenors but are priced using different interest rate indices or references. For example, a floating-rate asset priced off Libor funded by a floating-rate liability priced off the ESTR overnight index. Optionality Risk can be either behavioural, as in loans that can be prepaid or deposits that can be withdrawn, or automatic, such as in caps and floors provisions.

Under the Basel standards, IRRBB should be measured with both economic value and earnings metrics across an appropriate range of interest rate shocks and stress scenarios. Banks must disclose the impact of specific regulatory scenarios on their EV and NII. The Supervisory Outlier Test (SOT) compares the bank's maximum change in economic value of equity (Δ EVE) under these scenarios with 15% of its Tier 1 Capital.

The Basel standards also provide guidelines for IRRBB governance, risk appetite statement, measurement systems, modelling techniques, modelling assumptions, capital adequacy as well as the details of a standardized framework that banks can use, either voluntarily or on the orders of supervisory authorities.

European Banking Authority (EBA)

In October 2022, the European Banking Authority (EBA) published its guidelines on the management of IRRBB and CSRBB, building on the guidelines published in 2018 and 2015. Concomitantly, the EBA published regulatory technical standards (RTS) on the standardised methodology and the supervisory outlier test. Most of these regulations are consistent with BCBS standards but provide a greater level of detail. The RTS introduces a new SOT on NII, where the initial threshold–maximum Δ NII not

exceeding 2.5% of Tier 1 Capital – has eventually been raised to 5% in an updated version.

IRRBB Measurement Techniques

Repricing Gap

The most straightforward way to assess IRRBB is to build a repricing gap. It involves the bucketing of all notional amounts items on predefined (regulatory or internal) tenors according to their maturity date (for fixed-rate instruments) or their repricing date (for floating instruments). Notional amounts are signed positively or negatively for assets and liability respectively. The resulting net gap position can be used to approximate the NII impact of future interest rate changes under a constant balance sheet assumption:

$$\Delta NII = \sum_{t} Gap_t * \Delta i * (T - t) \tag{1}$$

Where Δi is the interest rate shock and T is the time in years to the end of the NII window (typically 1 year), while t is the time in years to the middle point of a given bucket.



Figure: Repricing gap for a simple balance sheet where 5Y loans are funded by floating-rate liabilities indexed on Euribor-3M

This Δ NII estimate is crude because it ignores possible changes in the size of the gaps that may arise when the bank or the client's behaviour adjusts to changes in the interest rate environment. Possible differences in "pass-through" rates through time and between products or changes in the commercial margins are also ignored.

Economic value impacts (Δ EVE) can be estimated by discounting the gaps under different rate curves. But this approach cuts many corners and proper price value of a basis point (PV01), duration or scenario analysis are better suited.

Sensitivity Analysis

Sensitivity analysis, often referred to as PV01 or DV01 analysis, is a technique that quantifies the change in the present value of cash flows resulting from a 1 basis point shift in the yield curve, either as a parallel move, or ideally bucket by bucket. To this end, all instruments should be revalued before and after the shock, including their optional components.

The PV01 metric can also be "sliced" by reference rate, giving a complementary view on the basis risk that may exist in terms of EV when assets and liabilities are priced or discounted on different rate curves.

This representation is useful to have a quick grasp of the tenors (and possibly reference rates) to which the bank is most sensitive. But it has the drawback of being a "local" measure, as the 1bp shock does not show possible changes in behaviour that may occur under a larger stress. Hence, the PV01 analysis is sometimes complemented by a convexity (or curvature) metric that captures possible changes in PV01 in response to interest rate shocks. Scenario analysis is a more comprehensive way of capturing non-linear effects.

Duration Analysis

Duration is a popular alternative sensitivity metric. It can be understood in two complementary ways. Macaulay duration only applies to fixed cash flow instruments and is defined as the weighted average time until repayment, typically measured in years:

$$MacDur = \frac{\sum_{i=1}^{n} t_i. CF_i. e^{-y.t_i}}{V}$$

As the formula suggests, times to repayments (ti) are weighted by the present values of the cash flow (CFi) as a proportion of the present value of all cash flows (V), using the yield-to-maturity (y) as the discount rate.

More generally, the duration of any instrument can also be understood as (minus) the relative change in price for a parallel shift in yields. This is the so-called modified duration:

$$ModDur = -\frac{\partial V/V}{\partial y} \approx \frac{1}{V} \frac{\Delta V}{\Delta y}$$

The Macaulay duration and the modified duration are strictly identical for fixed cash flow instruments when the yield is continuously compounded as in formula (1), The modified duration provides an intuitive way of assessing the relative sensitivity of an instrument to absolute fluctuations in interest rates. Indeed equation (3) can be reordered as:

$$\Delta V/V\approx -ModDur.\Delta y$$

For example, a bond with a duration of 7 years will approximatively lose 7% (in relative terms) when the rate increases by 1% (in absolute terms). Replacing Δy by 1bp in equation (3), we find:

$$ModDur \approx \frac{PV01}{V}.10000$$

(2)

(3)

(4)

(5)

Hence, the duration analysis is a variation of the PV01 sensitivity analysis that has an intuitive underpinning (as the weighted average time to repayment). Duration analysis helps banks manage interest rate risk and is often a metric of choice to define the risk appetite statement or set limits at the ALCO. The metric suffers from the same limitations as the PV01 metric (it measures the exposure to small parallel shifts in the yield curve).

Scenario analysis

A more general way of assessing the interest rate risk is to simulate changes in economic value (Δ EVE) or earnings (Δ NII) under a variety of internal and regulatory scenarios. This allows a bank to identify the circumstances under which it is vulnerable and address them effectively.

Regulatory scenarios consist in specific parallel up/down, flattening/steepening and short up/down shocks, while internal scenarios can be historical interest rate shocks or custom scenarios that reflect a bank's risk profile. Economic scenarios involving larger shocks allow the capture of non-linear effects associated with changes in behaviour or other optionalities. For NII scenarios, sophisticated banks will include in their repricing models' expectations about pass-through rates and commercial margins product by product.

Behavioural Modelling

The quality of both EV and NII scenario critically depends on the quality of the modelling of the behavioural features. In a declining interest rate environment, borrowers will be more likely to prepay and refinance their loans (as the termination penalty is often limited by law), whereas in a rising interest rate environment, clients may withdraw some of the cash held in deposit or saving accounts in favour of more profitable investments. Early redemption of term deposits also becomes more common. Such behaviours can lead to swings in capital and earnings if not well managed.

Non-Maturity Deposits

Non-Maturity Deposits (NMDs) are deposits - typically on sight and saving accounts - that clients can withdraw at short notice and on which

banks can unilaterally change the remuneration. Although funds can be withdrawn overnight, in practice, these deposits exhibit stickiness and significant duration. Given the importance of deposits as a source of funding, assessing this duration adequately is key to managing the overall IRRBB.

As a preliminary, regulators encourage separating stable from non-stable deposits and impose isolating core deposits. Under the voluntary standardised framework, stable deposits are the portion unlikely to be withdrawn with a high degree of likelihood. Core deposits are then the portion of the stable deposits that is found not to reprice in response to changes in market rates (no quick "pass-through" to client rates). Non-stable and non-core deposits are treated as short term positions (usually overnight), while core duration is modelled separately.

Simple approaches to assess deposit stability are based on a statistical analysis of historical volumes, looking at the largest volume declines at a given horizon and confidence level. Ideally, the analysis should be done at vintage level to carve out the effect of new business arising from new clients (as the EV has to be calculated under a run-off assumption). A cruder approach is to look at the evolution of volumes per client.

More sophisticated approaches aim at modelling the joint evolution of volumes and deposit rates, possibly also taking macro-economic factors into account, while avoiding the usual econometric pitfalls (see our article here for a presentation of such models).

Different routes are open to banks to model the core deposits. A classical approach is to identify an optimal replicating portfolio, which is the combination of fixed income instruments that most closely reproduces the deposit cash flows. The sensitivity of the replicating portfolio is then used as a proxy for the core deposits in EV calculations. Such analyses used to be based on historical volumes and deposits rates only. But regulators are encouraging banks to include a forward-looking perspective and consider the expected performance of the replicating portfolio under a wide range of interest rates scenarios, which also requires the modelling of deposit rates (and possibly volumes) under these scenarios.

Another route is to assess the pass-through of changes in market rates to the deposit rates (i.e. "deposit betas") and imply the repricing profile of core deposits from these pass-through rates. Partial equilibrium models (also called error correction mechanisms) work well in this respect but alternative techniques as PCA or ARIMA can also be used. These pass-through rates will also be used to model NMD's repricing in NII simulations (under a constant balance sheet hypothesis for regulatory reports).

It is important to note that segmentation of customers (such as jurisdiction, product type, currency, characteristics of the depositor) plays a critical role to capture the behavioural factors. Sophisticated AI and machine learning methods can be used to achieve a correct segmentation.

Prepayment Risk

Prepayment occurs when clients make unscheduled payments on a fixed-rate loan before its contractual maturity, reducing the principal and altering the expected cash flows and duration of the loan. Prepayment is driven either by financial incentives, such as refinancing a current loan at a lower rate, or non-financial incentives, such as unexpected needs by customers or strategic decisions by firms. Usually, a penalty applies when a client prepays a loan; prepayment risk arises when the amount of the penalty charged by the bank does not fully offset the loss in interest income.

To manage this risk, future prepayments on fixed-rate loans should be estimated under different market conditions. The Conditional Prepayment Rate (CPR) is the most used to model prepayment in a portfolio. The simplest



a 5Y swap receiving 3M floating and paying fixed.

approach is a static model, which generates a constant prepayment rate based on historical data unconditional on market interest rate levels. However, dynamic approaches can also be applied, taking into account market rates and refinancing incentives. As in NMDs modelling, it is important to segment the analysis by types of prepayable products, currency, jurisdiction, and borrowers' characteristics to ensure a reliable estimation.

IRRBB Management and Hedging

After identifying and measuring interest rate risk, the next step for a bank is to manage its IRRBB and possibly hedge it when risk appetite limits are under threat.

Natural hedging can be achieved by acquiring assets that match the funding structure or adjusting the funding structure to match the assets, for example by issuing long-term bonds to fund long-dated assets. But the bank's intermediation model (transforming short term deposits into longer term loans) often limits its ability to close the interest rate gaps naturally and other means are needed.

Derivatives such as interest rate swaps, swaptions, forward rate agreements, or forward bonds are commonly used by banks to close EV and NII exposures. The hedging strategy needs to be tailored to specific objectives and aims to achieve a target profile (target gap or sensitivity metrics). For example, if a bank is funding longterm fixed-rate assets with short-term floatingrate deposits, entering long-term fixed-rate payer swaps with matching maturities will close the repricing gap and secure its net interest margin.

Figure: Case of a simple balance sheet where 5Y loans are funded by 3M-floating-rate liabilities. Impact of hedging with

Types of hedges

A first distinction is made between cash flow hedges and fair value hedges. In the IRRBB context cash flow hedges aim at reducing the variability of cash flows that arises from volatile interest rates. They are typically associated with floating-rate exposures. In contrast, fair value hedges are used to mitigate changes in the fair value (or economic value) of fixed-rate exposures.

A second distinction exists between micro hedging and macro hedging. Micro Hedging is a method used to mitigate risk on a single item within a larger portfolio and it requires a nearly perfect correspondence between the hedged item and the hedging instrument. Macro Hedging in contrast aims at mitigating the risk of a portfolio of items that are inconvenient to hedge individually, such as retail loans and deposits. Both methods can be used to reduce volatility in NII or EVE and maintain them below the targeted limits under different scenarios.

Some residual risk may remain due to basis risk or discounting differences, even with micro hedges. Hedge effectiveness testing is conducted to assess the extent to which changes in the fair value or cash flows of the hedged item are offset by the hedging instrument. When linear hedges are used (swaps, futures), hedge effectiveness may be diminished by the existence of optional features. For example, prepayment or early redemption may create unanticipated changes in cash flows, potentially resulting in over hedging. Employing a dynamic hedging strategy, which involves frequent rebalancing of the hedge relationship, can help prevent over-hedging. A "layered" hedging approach can also be applied, where a portion of the portfolio that is unlikely to be affected by prepayment is defined as the hedged item.

Hedge Accounting

In the absence of proper accounting arrangements, hedging is likely to create instability in the financial statements. Indeed, banking book instruments - like deposits and loans - are typically accounted at amortised cost so that gains or losses associated with changing interest rates will accrue through time. In contrast, changes in the fair value of derivatives will flow to profit-and-loss accounts immediately as they arise.

Hedge accounting is a response to this problem. It is an optional technique that modifies the recognition of gains and losses (or revenues and expenses) on hedging instruments and hedged items, so that both are recognised in P&L (or OCI) in the same accounting period:

- For fair value hedges, the change in the fair value of the hedged item that can be attributed to the hedge risk is taken into PnL with the derivative (e.g. via the hypothetical derivative method). The net residual PnL then reflects the ineffectiveness of the hedge.
- For cash flow hedges, gains or losses on the effective portion of the derivative are recognized in OCI (as cash flow hedge reserve), while the ineffective portion remains in PnL.

IAS 39 has defined the requirements for hedge accounting since 2018. However, institutions can opt to continue following IFRS 9 rules. Both frameworks define requirements in terms of effectiveness testing and documentation for the hedging relationship to be valid. It is worth noting that the European Commission passed some "carve-out" provisions in 2005 allowing EU banks to continue using fair value hedge accounting for derivatives hedging core deposits.

Enhance your IRRBB Management

In volatile markets, banks must adopt a proactive approach to identify, measure and manage IRRBB risks, keeping NII and EVE within the regulatory and internal limits. A crucial step is to properly identify the sources of gap, basis and option risks on and off the balance sheet. Behavioural modelling plays an important role in understanding the bank's exposure and quantifying IRRBB risks properly in adapted sensitivity and scenario analyses. When risk appetite limits are under threat and natural hedging falls short, the bank may need to engage in micro or macro hedging strategies, taking the accounting implications into consideration. All these elements need to be organised within a strong governance framework under the lead of the ALCO committee.

Amid these challenges and the increasing importance of IRRBB, our expert team is ready to help you achieve your IRRBB goals, enhancing your ALM practices, from identifying and measuring IRRBB risks to implementing effective hedging strategies or improving IRRBB governance.

Reference

1. The credit spread risk of banking book (CSRBB) is a risk that is related to IRRBB and pertains to changes in market perception about the broad credit quality of instruments. Basel standards already require the identification and monitoring of CSRBB; the EBA guidelines detail these requirements further.

2. When the yield is compounded k times a year, the relationship becomes: MacDur=ModDur.(1+y/k)

ARTICLE

Differences between UK and EU implementation of **Basel 3.1 Framework**

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On September 12, 2024, the PRA released its second near-final Policy Statement, PS9/24, titled "Implementation of the Basel 3.1 Standards: Near-Final Part 2." This policy statement outlines the PRA's rules for implementing the Basel 3.1 standards, specifically addressing credit risk, the output floor, as well as reporting and disclosure requirements. It follows Consultation Paper CP16/22, with the first near-final Policy Statement, PS17/23, published in December 2023. The PRA indicates that, based on the latest firm data, it expects Tier 1 capital requirements for major UK firms to remain "virtually unchanged" under the measures set out in PS9/24, with a total increase of less than 1% by January 2030, when the transitional arrangements expire. The final rule instruments, technical standards instrument and final policy statement on Basel 3.1 will be published after the Treasury has made commencement regulations to revoke the relevant parts of the capital requirements regulation that the final PRA rules will replace. The PRA has decided to delay the implementation date for the Basel 3.1 standards by a further 6 months from July 2025 to 1 January 2026, with a 4-year transitional period ending on 31 December 2029. This delay is intended to support a smooth implementation of the package and takes account of feedback from the consultation as well as the implementation timelines of other jurisdictions.



Differences between EU and UK implementation of Basel 3.1

Output floors

Key Difference: The main distinction lies in the specific timelines for the phase-in of the output floor, with the UK's transitional period starting slightly later than the EU's.

BCBS (2017 reforms)	Basel introduces standardised RW/ types with a five-
EU approach (CRR III & CRD VI)	The EU follows the the capital level than 72.5% of the The impact of the floor will gradual transitional meas exposures from 2 risk-weighted as apply at the solo to apply it at the l
UK approach (PS17/23 & PS9/24)	The UK follows the RWAs set at 72.55 calculation of buf 2.5% of RWAs, an a five-year transit 72.5% in 2029.

a new overall floor for modelled RWAs set at 72.5% of 'As. This applies at the organisation level across all risk -year transitional period from 2022 to 2027.

he Basel Approach. The new regulation mandates that calculated using internal models must not be lower requirements under the standardized approach.

nis rule will also be phased in over time. The output lly increase from 50% in 2025 to 72.5% in 2029, and sures will reduce the output floor calculation for certain 2025 to 2032. The output floor will apply to the total ssets, not on a portfolio-by-portfolio basis, and will level by default, with an option for national authorities highest domestic consolidated level.

he Basel approach with the overall floor for modelled %. The floored RWAs will be used as the basis for the ffers, with the capital conservation buffer (CCoB), set at nd countercyclical capital buffer. The PRA also includes tional period, beginning on 1 January 2026 at 55% to

Credit Risk - SA

Key Differences: The EU maintains certain support factors and allows country Regulators for a level of flexibility in setting risk weights, while the UK focuses on a more risk-sensitive approach and removes SME support factor, while lowering risk weights for SME exposures.

BCBS (2017 reforms)	Basel introduces changes to wholesale exposures to increase risk sensitivity, reducing reliance on credit ratings and requiring banks	BCBS (2017 reforms)	Basel removes th corporates with re financial institution
	to conduct due diligence. For residential mortgages, risk weights now depend on the loan-to-value (LTV) ratio, with two approaches: the whole loan and loan-splitting methods. Property values are maintained at origination unless supervisors require a downward revision. Unrated corporates receive a flat 100% risk weight in some jurisdictions, while others use a more risk-sensitive approach, with 65% for investment-grade corporates and 100% for non-investment grade. Unrated corporate SMEs get an 85% risk weight.		eliminated, while t unchanged. Basel IRB: - Corporate - Mortgages - QRRE (Tra - QRRE (Rev - Other reta
EU approach (CRR III & CRD VI)	The EU generally aligns with the Basel approach but introduces some variations. It applies a 100% risk weight for unrated corporates, with a carve-out for IRB firms, allowing a 65% risk weight if the probability of default (PD) is below 0.5%. For SMEs, the EU maintains a 75% risk weight for retail SMEs and 100% for corporate SMEs, keeping the SME support factor. Unlike the UK, the EU retains the infrastructure support factor, which offers lower risk weights for certain projects. For residential mortgages, the EU proposes a loan-splitting approach and allows property revaluation after origination under specific conditions. Additionally, a carve-out linked to the output floor allows a 10% risk weight for loans up to 55% LTV until the end of 2032.	EU approach (CRR III & CRD	VI) The EU generally of the Advanced-I and mid-sized cor use the Foundation for equity exposur- input floors for key for QRPE revolvers retail). Sovereign e Further changes ir and the elimination calculations. Additi
UK approach (PS17/23 & PS9/24)	 The UK generally follows Basel. It however removes the SME support factor in Pillar 1, replacing it with a firm-specific Pillar 2A adjustment to avoid increasing capital requirements for SME exposures. It retains 85% risk weight for unrated corporate SME exposures in addition to the 75% risk weight for retail SME exposures and 45% for 'transactor' exposures. The 100% risk weight floor for SME exposures secured by commercial real estate is removed, leading to lower risk weights for qualifying exposures. The UK now withdraws the SME support factor. The country is also implementing a more risk-sensitive approach to project finance exposures. Additionally, the UK follows the Basel approach, introducing a loan-splitting method for residential mortgages. When calculating the loan-to-value (LTV) ratio, the UK proposes that property asset valuations 	UK approach (PS17/23 & PS9	to 40% for non-fin with floors phased /24) The UK generally for Firms must now models are integra IRB approach (use with adequate his development, vali retire the SME sup CRR3.
	should be based on the value at the time of origination, though this can be updated to the current value if the property is remortgaged.		

Credit Risk- Internal Ratings Based Approach

Key Differences: The EU chooses to implement a 0.05% PD for retail while the UK goes for a more conservative 0.1% PD input floor for retail.

the Advanced-IRB approach for large and mid-sized evenues over €500 million, as well as for banks and ns. The IRB approach for equity exposures is also fully the modeling options for sovereign exposures remain introduces new input floors for PD, LGD, and EAD for

PD (5bps), LGD (unsecured 25%, secured varies). s: PD (5bps), LGD (5%). nsactor): PD (5bps), LGD (50%). olver): PD (10bps), LGD (50%). il: PD (5bps), LGD (varied).

follows the Basel approach. CRR3 reduces the scope IRB (A-IRB) approach. It will no longer apply to large porates or financial institutions, which are required to n-IRB approach instead. Additionally, the IRB approach es is entirely removed. CRR3 also introduces minimum y parameters: PD (0.05% for corporates and retail, 0.1% s) and LGD (25% for unsecured corporate loans, 30% for exposures are exempt from these floors.

nclude the removal of the 1.06 scaling factor for RWAs n of the double default treatment to simplify risk weight ionally, LGD for senior unsecured corporates is lowered nancial entities, while specialized lending retains A-IRB, in over five years.

ollows the Basel approach but with some amendments. obtain PRA permission and demonstrate that their al to credit risk management to be allowed to use the test). They must ensure data used is representative, torical quality, and have robust processes for model dation, and documentation. The UK has decided to porting factor, while the EU has retained it under the

Operational risk

Key Differences: There is no major difference between the two approaches.

BCBS (2017 reforms)	Basel simplifies the framework by replacing four previous approaches with a single SA.
EU approach (CRR III & CRD VI)	The EU follows the Basel approach with the adoption of single standardised approach. The calculation is solely based on a revenue-linked indicator. It includes: a cap on the net interest margin (similar to the alternative standardized method). A more conservative treatment of fees, using the higher of fees received or paid. Separate treatment of gains and losses on financial assets for the banking and trading books. A progressive factor applied to the
	business indicator, no longer assigning different factors to each activity but instead applying a marginal coefficient per business tier. It neutralizes the loss history for calculating capital requirements for operational risk, CRR3 mandates loss data collection for institutions with a business indicator exceeding EUR 750 million.
UK approach (PS17/23 & PS9/24)	The UK follows the Basel approach by replacing the four previous approaches with a single SA. It also uses its national discretion to set Internal Loss Multiplier at 1.

Credit valuation adjustment (CVA)

Key Differences: UK regulatory approach tends to emphasize immediate and comprehensive risk management, and a more gradual increase in capital requirements.

Exemptions: PRA has revoked CVA exemptions for new trades with pension funds, non-financial counterparties, and sovereigns; these trades will now be subject to CVA capital charges. EU continues to allow certain exemptions for these counterparties. Transitional Arrangements: UK has introduced transitional arrangements to phase out exemptions for legacy trades, gradually bringing all trades under the CVA framework. EU has not implemented similar transitional

BCBS (2017 reforms)	Basel considered CVA to the use of the internally a basic approach. The Committee has red delta weights by 30%, sovereigns from 3% to CVA, high-yield and no 3% to 2%. New index buckets are using credit and equit Certain SFTs and clier requirements, and the is reduced. The SA-CVA multiplier the BA-CVA, recalibration
EU approach (CRR III & CRD VI)	The EU allows for two m and the advanced meth portfolios. Certain con counterparties, and so means that trades with CVA risk.
UK approach (PS17/23 & PS9/24)	The UK CVA risk francalculating capital restandardised approach The PRA provides no effinancial counterparties this is compensated by approach from 1.4 to 1 which represents a dive

arrangements, maintaining a more static approach.

to be the most complex risk of them all, thus, it removes ly modeled approach, replacing it with (i) an SA; and (ii)

duced risk weights in the SA-CVA, cutting interest rate foreign exchange by 50%, and high-yield/non-rated 2%. Vega risk weights are capped at 100%. In the BAon-rated sovereign risk weights are also reduced from

e introduced, allowing banks to calculate CVA capital ty indices, aligning with the market risk framework. nt-cleared derivatives are exempt from CVA capital margin period of risk for centrally cleared derivatives

is reduced from 1.25 to 1, with similar adjustments for ing CVA capital requirements.

methods to calculate CVA risk: the standardised method thod, to reflect complexity and size of the institution's punterparties, such as pension funds, non-financial overeigns, are exempt from CVA capital charges. This these entities do not require additional capital to cover

amework introduced three new methodologies for equirements: the basic approach (BA-CVA), the h (SA-CVA) and the alternative approach (AA-CVA). exemptions for exposures related to sovereigns, nones, and pension funds from the CVA charge. However, by a reduction of the alpha factor under the SA-CCR 1 for non-financial counterparties and pension funds, ergence from both Basel and the CRR.

Market risk (FRTB)

Key Differences

Complexity: UK A-SA is more comprehensive, suitable for larger institutions with significant trading activities, while the EU A-SA is simpler and more applicable to smaller institutions.

Regulatory Oversight: UK A-SA involves stricter regulatory requirements and oversight compared to the EU A-SA. UK pre-application process for banks to be granted approval to use IMA is more rigid.

Output Floors: EU approach does not explicitly mention output floors in the same context as the UK's implementation, where standardised approach acts as a floor for capital requirements.

BCBS (2017 reforms)	 Through the FRTB, Basel revises the SA framework to make it more risk-sensitive and mandatory for all trading banks. As part of the reforms, there is a new capital charge for residual risks. In respect of modeling, Basel changes the existing SA and IMA approaches, as well as introduces new concepts: Default Risk Charge (DRC): measure capturing jump-to-default risk Risk factor eligibility test (RFET): data availability based measure deciding on the risk factor applicability in modelling Non-modellable risk factors (NMRF): risk factors for which there is no sufficient price data are subject to a separate capital add-on estimated based on a stress scenario. +P&L attribution test (PLAT): back-testing method assessing trading desk risk management using comparison between modelled and realized daily profit and loss. Under IMA, banks are required to measure risk using expected shortfall instead of VaR models. Another change also sees IMA approvals granted at trading desk level with new back testing requirements imposed, and model eligibility subject to PLAT.
EU approach (CRR III & CRD VI)	 The application of the FRTB provisions in CRR3 has been delayed to January 2026 to adapt with US implementation of Basel. The EU implementation of FRTB introduces three approaches: Simplified Standardised Approach (S-SA): Modifies the existing standardised approach for market risk by applying supervisory factors. Alternative Standardised Approach (A-SA): This approach uses sensitivities-based calculations and incorporates additional qualitative requirements. Internal Models Approach (A-IMA): The internal models approach for market risk now centers on the expected shortfall instead of the value at risk.
UK approach (PS17/23 & PS9/24)	 Three approaches are included by the PRA, which are aligned with the EU implementation: Simplified Standardized Approach, Advanced Standardized Approach, and the Internal Models Approach. The UK implementation broadly aligns EU, with minor discrepancies. CIU Treatment: Exchange-traded CIUs will now be considered as listed equities, reducing capital requirements. ASA Eligibility: The scope of eligible third parties for ASA calculations has been expanded. RRAO Scope: The PRA has clarified the scope of instruments subject to the Residual Risk Add-On (RRAO). MA Changes: The 75% minimum coverage requirement for stress period risk factors has been imposed at a portfolio level, and sovereign default risk modeling has been standardised. NMRF Enhancements: The PRA has introduced changes to make the calculation of NMRFs more flexible. In the letter published on 27th June 2022 PRA outlined a detailed preapplication process for banks to follow, which is more rigid compared to the EU's approach.

Off balance sheet

Key Differences: The EU takes a more lenient approach, allowing institutions to continue applying a 0% CCF to these commitments until the end of 2029, while the UK strictly follows Basel and does not provide for a transition period.

BCBS (2017 reforms)	Basel introduces a revi arrangements entered unconditional cancell (including standby lette and securities), a 100% optional derogation – uncommitted commitm
EU approach (CRR III & CRD VI)	The EU availed itself fo allows institutions, to arrangements for corp 'commitments. CRR3 a 2029 whereby institution cancellable commitme
UK approach (PS17/23 & PS9/24)	The UK broadly follows exercise the national di apply the 10% CCF for the 10% CCF with imm CCF for "other commit

ised definition of commitment, based on contractual d into by firms. It proposes a new 10% CCF for lable commitments. For direct credit substitutes ers of credit serving as financial guarantees for loans 5 CCF is also introduced. Finally, Basel provides for an whereby national rule makers could exempt certain ments from such requirements

or the exemption provided for by the Basel Standards, continue to apply a 0% CCF to specific contractual rporates, including SMEs, that are not classified as also introduces a transitional period until 31 December ons are permitted to apply a 0% CCF to unconditionally ents.

vs Basel. It has decided to maintain its proposal not to liscretion provided for in the Basel 3.1 standards and to r unconditional commitments. The PRA will introduce nediate effect from January 2026. It finally sets a 40% tments".

Disclosure (Pillar 3)

Key Differences: The EU has more comprehensive and stricter Pillar 3 disclosure requirements for ESG risks, driven by its focus on sustainable finance, while the UK's approach is still developing and currently less prescriptive in this area.

BCBS (2017 reforms)	 Pillar 3 requirements introduced by the BCBS in the new Basel framework primarily focus on enhancing the transparency and comparability of banks' risk profiles through improved disclosures. More granular risk-weighted asset (RWA) disclosures: Banks are required to provide more detailed breakdowns of their RWA calculations, particularly distinguishing between those calculated using internal models versus standardized approaches. This aims to reduce opacity and improve comparability across banks. Capital ratio disclosures with and without capital floors: Banks must disclose two sets of capital ratios, one including the impact of capital floors and one excluding them. This provides insight into the extent to which capital floors contribute to a bank's overall capital adequacy. Introduction of new disclosure templates: New templates have been introduced to standardize the presentation of required disclosures, facilitating easier comparison and analysis across all institutions.
EU approach (CRR III & CRD VI)	 With CRR III, the EU updates almost all Pillar 3 disclosures requirements, aligning them with new Pillar 1 RWA calculations and reducing the administrative burden for smaller banks. All institutions must submit disclosure reports to a public EBA platform, to improve transparency and data comparability. Small and non-complex institutions may have their disclosure information generated from existing regulatory reports like COREP and FINREP, reducing their workload. Finally, new requirements include disclosing ESG risks and exposures to shadow banking and crypto assets, except for small and non-complex institutions not publicly listed.
UK approach (PS17/23 & PS9/24)	The UK follows the Basel approach. To maintain proportionality, the PRA provides that large and listed firms should disclose at the minimum frequency introduced in the Basel reforms with the same material content and format to the disclosure templates.

Summary

Despite significant time and resources dedicated to the implementation of Basel Framework in the UK, full alignment still requires substantial efforts. Mastering the new standardised approach for credit risk, navigating the revised market risk framework, and accurately calculating the output floor, the interconnectedness of the revised risk frameworks, the impact on capital planning and stress testing, and the need for a robust IT infrastructure necessitate a comprehensive approach. With years of experience in implementing Basel 3.1 across Europe, Finalyse can help you accelerate UK implementation across policy, governance, modelling, data, and technology change.



— 34 —

Supervision

Supervision EBA (Press Release)

2024 EU-wide transparency exercise

The EBA has announced that it has launched the 2024 EU-wide transparency exercise, a preliminary assessment of the health and resilience of Europe's banking sector. This exercise, which uses supervisory reporting data from over 100 major EU banks, focuses on key metrics like capital positions, profitability, financial assets, risk exposures, sovereign exposures, and asset quality. The results will be released in November alongside the Risk Assessment Report.

Release date: 2024-09-09

eba.europa.eu

CRR3 EBA (Press Release)

EBA consideration on the postponement of the FRTB in the EU

The EBA has published a no-action letter regarding the revised market risk framework (FRTB) in the EU, recommending that competent authorities refrain from enforcement actions related to the boundary between banking and trading books. The EBA argues that implementing the boundary provisions before the rest of the FRTB framework would lead to a complex and costly two-step implementation, creating inconsistencies with global standards.

Release date: 2024-08-12

eba.europa.eu

CRR EBA (Opinion)

Measures to address macroprudential risk

The EBA has approved the Dutch Central Bank's (DNB) request to extend a measure aimed at bolstering the resilience of Dutch banks against potential real estate market downturns. This measure, which applies to institutions using an internal ratings-based (IRB) approach, mandates a minimum average risk weight for housing loan portfolios based on the Loan-to-Value (LTV) of each loan. The extension, effective from December 1, 2024, seeks to address concerns related to high household indebtedness and the concentration of bank exposures in the Dutch residential real estate mortgage market, particularly high-LTV loans.

Release date: 2024-08-29

EBA Op/2024/06

Supervision EBA (Report)

Peer Review on the GL of Definition of Default

The EBA has published a review of its Guidelines on the definition of default, finding that supervision in this area is generally effective, particularly for Internal Ratings-Based Approach credit institutions. Supervision of the standardised approach (SA) is also good but varies more due to the diversity of credit institutions and the prevalence of Internal Ratings-Based Approach institutions. The review also highlights the importance of a harmonized definition of default especially in the aftermath of the global financial crisis.

Release date: 2024-07-22

eba.europa.eu

Supervision

Basel BCBS (Standards)

Cryptoasset standard amendments

The BCBS has published the finalised amendments to the prudential standard on banks' exposures to cryptoassets. These amendments aim to clarify the criteria for stablecoins to qualify for a preferential regulatory treatment and address other technical aspects of the standard.

Release date: 2024-07-17 Application Date: 2026-01-01

<u>bis.org</u>



Supervision BCBS (Consultation)

Principles for the sound management of third-party risk

The Basel Committee has issued a consultative document on the Principles for the sound management of third-party risk, addressing the increasing reliance on third-party service providers due to digitalisation and fintech growth. These principles establish a common risk management baseline for banks and supervisors, while allowing flexibility for different regulatory practices. They are mainly directed at large, internationally active banks but also benefit smaller banks and authorities globally. These principles will replace the 2005 Joint Forum paper on outsourcing in financial services for the banking sector.

Release date: 2024-07-09 Consultation End: 2024-10-09

publ/d577



— 36 —

Basel BCBS (Standards)

Disclosure of cryptoasset exposures

The BCBS has published the finalised disclosure framework for banks' cryptoasset exposures. This framework, based on the prudential standard published in December 2022, includes a standardised table and templates for disclosing both qualitative and quantitative information about cryptoasset exposures. The goal is to promote market discipline and reduce information asymmetry among banks and market participants.

Release date: 2024-07-17 Application Date: 2026-01-01

bis.org



CRR3/CRD6 EBA (RTS)

Updated Supervisory Reporting Requirements

The EBA has published an update to the supervisory reporting framework to align with the CRR3 and the latest Basel III reforms. These new standards introduce or amend reporting requirements for output floor, credit risk, market risk, CVA risk, operational risk, leverage ratio, and transitional reporting on crypto-asset exposures. The ITS include minimum operational risk reporting requirements, with more extensive requirements to follow by the end of the year. The EBA is also providing tools to facilitate the use of Pillar 3 data, including updated mapping tools and a summary of disclosure requirements.

Release date: 2024-07-09

EBA-ITS/2024/06



Supervision

CRD EBA (Report)

Convergence of Supervisory Practices in 2023

The EBA has published its 2023 Report on convergence of supervisory practices. The report highlights the need for more consistent identification and treatment of risks under Pillar 2 requirements across the EU. The report notes that despite some improvements, further consistency and enhancements in supervisory practices and information sharing are needed to achieve greater convergence in supervisory outcomes.

Release date: 2024-07-08 EBA/REP/2024/13

Basel BCBS (Press Release)

Policy and Supervisory Initiatives

The Basel Committee has announced that it has approved several important measures related to banks' cryptoasset exposures and interest rate risk. A new disclosure framework for cryptoasset exposures, including standardised public tables and templates, will be published in July and implemented on January 1, 2026. Adjustments to the IRRBB standard were approved, aiming to better capture interest rate changes near zero, with updates effective from January 1, 2026. The Committee will also consult on new principles for managing third-party risk later this month.

Release date: 2024-07-03





Basel BCBS (Consultation)

Consultation on Technical Amendments and FAQs

The BCBS has initiated a public consultation on various technical amendments to help promote a consistent interpretation of the Basel Framework. The consultation includes proposed updates to various FAQs and covers: (i) the standardised approach to credit risk; (ii) cryptoasset exposures; (iii) counterparty credit risk; (iv) the standardised approach to operational risk; (v) the simplified standardised, standardised and internal models approaches to market risk; and (vi) the net stable funding ratio.

Release date: 2024-07-05 Consultation End: 2024-08-19 bcbs/publ/d576



Supervision EBA (Report)

Risk Assessment Report

The EBA has published its spring risk assessment report highlighting elevated geopolitical risks and economic uncertainty for EU/EEA banks. The report combines analysis of banks' asset encumbrance, funding plan data, and specific chapters on Commercial Real Estate exposures and interconnections with non-bank financial intermediaries. Key findings include increased non-performing loan ratios, over EUR 1.4tn in CRE loans, plans for more long-term market-based funding, and a rise in operational risks such as cyber-attacks. Despite these challenges, EU/ EEA banks' profitability has risen, though future net interest income growth is expected to halt.

Release date: 2024-07-02



Risk Management

CRR EBA (Q&As)

Q&As on Liquidity Reporting

The EBA has published a Q&A relating to supervisory reporting requirements under the CRR. Specifically, the Q&As provide guidance on the calculation of the net stable funding ration (NSFR) in the context of repos and reverse-repos.

Release date: 2024-08-30

2024_7034

CRD EBA (ITS)

Draft ITS on benchmarking of internal models

The EBA has published its final draft ITS for the 2025 benchmarking exercise of credit risk, market risk, and IFRS 9 models. The most notable change is the expansion of the ASA validation portfolios to all asset classes for market risk. Minor changes have been suggested for credit risk, primarily clarifying the mandatory reporting of PD and LGD risk parameters and the use of internal model IDs. Due to the postponement of the FRTB implementation in the EU, the templates based on the alternative internal model approach for market risk remain unchanged from the 2024 exercise.

Release date: 2024-08-09

EBA/RTS/2024/18



- 38 -

CRR3 EBA (ITS)

Draft amendments to the FRTB RTS

The EBA has published the final amendments to its RTS on the FRTB, primarily to align with the CRR3 and to ensure regulatory stability. The revisions include updates to foreign-exchange and commodity risk treatment, the removal of the market risk capital aggregation formula now covered by CRR3, requirements for clear identification of third-party vendor reliance in risk factor modellability, and emphasis on accurately capturing translation risk in the non-trading book.

Release date: 2024-08-13

EBA/RTS/2024/18

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CRR3 Commission (Regulation)

Date of application of the own funds requirements for market risk

The EC has published a Delegated Regulation postponing the application of the new market risk requirements for banks under the CRR by one year to January 1, 2026. This means the current market risk requirements, including calculations for own funds requirements and reporting obligations, will continue to apply until then. The postponement specifically affects amendments made to the CRR's market risk framework, including provisions in Part Three, Title IV and Articles 430b, 445, and 455.

Release date: 2024-07-24

C(2024)5139



Risk Management

CRR3 EBA (Statement)

Operational Application of CRR3 in the Area of Credit Risk Modelling

The EBA has published a statement clarifying the operational application of the new CRR3 in the area of credit risk modelling. Banks should inform authorities about planned model landscapes, particularly migrations to the foundation (F-IRB) and standard approaches. They should assess and categorise changes from CRR3 affecting rating systems, excluding non-impactful changes from the Commission's Delegated Regulation on model change. Banks must also share implementation plans for modelling updates linked to future EBA products, with CCF parameter updates that do not require immediate prioritization until relevant EBA guidelines are applied.

Release date: 2024-07-17

eba.europa.eu

Basel BCBS (Standards)

Recalibration of shocks in the IRBB Standard

The BCBS has published the finalised targeted adjustments to its IRRBB standard. These changes include expanding the calibration time series to December 2023, using local shock factors for each currency, moving to a 99.9th percentile value for shock factor determination, and reducing shock rounding from 50 to 25 basis points. These adjustments address issues in capturing interest rate changes when rates are near zero and are separate from the Committee's work following the March 2023 banking turmoil.

Release date: 2024-07-16 Application Date: 2026-01-01

publ/d578



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CRR EBA (ITS)

Amending ITS on the joint decision process for IM authorisation

The EBA has initiated a consultation on amending the Implementing Regulation for the joint decision process on internal model authorisation under the CRR. The revised ITS reflect changes in the EU legal framework, including a reduced scope for internal models under CRR3 and updates on supervisory colleges' functioning. Notably, references to the Advanced Measurement Approach for operational risk have been removed.

Release date: 2024-07-16 Consultation End: 2024-10-16

EBA/CP/2024/16



CRR EBA (Draft RTS on CVA Risk of SFTs)

Supervisory Reporting of IRRBB

The EBA has initiated a consultation on draft RTS concerning the materiality of CVA risk exposures arising from fair-valued securities financing transactions. The consultation aims to establish criteria and conditions to determine whether these CVA risk exposures are significant enough to be exempt from own funds requirements for CVA risk.

Release date: 2024-07-08 Consultation End: 2024-10-08





Risk Management

CRR Commission (ITS)

Mapping credit assessments of ECAIs under the CRR

The Official Journal of the EU has published an Implementing Regulation to amend the technical standards in Commission Implementing Regulation (EU) 2016/1799. This amendment updates the mapping tables that correlate credit risk assessments from external credit assessment institutions (ECAIs) with the credit quality steps in the CRR. The changes reflect updated quantitative and qualitative data, deregistration of three ECAIs, and the renaming and symbol changes of some ECAIs.

Release date: 2024-07-05 Application Date: 2024-07-25

<u>(EU) 2024/1872</u>



Stress Testing EBA (Press Release)

EBA Banking Stress Testing

The EBA has initiated an informal consultation on the draft methodology, templates, and guidance for the 2025 EU-wide stress test. This methodology builds on the 2023 exercise, incorporating insights and regulatory changes such as the CRR3 and adjustments for the postponed FRTB. 68 banks from the EU and Norway will participate, covering 75% of the EU banking sector. The methodology includes enhancements in net interest income projections and market risk sensitivity. The final methodology will be published by the end of 2024, with the exercise starting in January 2025 and results expected by July 2025.

Release date: 2024-07-05

eba.europa.eu



Recovery & Resolution

BRRD SRB (Press Release)

SRB adopts its MREL Policy

The SRB has announced changes to its MREL policy, in line with the Daisy Chains Act, to give more flexibility in setting internal MREL for banking groups, ensuring adequate loss-absorbing capacity. It also simplifies the MREL requirements for liquidation entities. Key amendments took effect on 14 November 2024, and the SRB will instruct national authorities to repeal MREL for certain liquidation entities during the 2024 resolution planning cycle.

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Release date: 2024-09-30

srb.europa.eu

BRRD EBA (Consultation)

Consultation on Resolution Planning Reporting

The EBA has published a consultation proposing changes to the Resolution Planning Reporting Framework under the BRRD. The proposed changes aim to improve the usability of the framework, enhance consistent monitoring of resolution planning, and harmonise reporting requirements in the EU. The changes include streamlining data points, extending the scope of entities, and expanding the information requested.

Release date: 2024-07-30 Consultation End: 2024-10-30

EBA/CP/2024/18



Market Environment

Supervision EBA (Report)

Banking Risk Dashboard

The EBA has published its Q2 2024 Risk Dashboard which shows that EU/EEA banks' return on equity remained stable year-on-year at 10.9%, while their net interest margin slightly decreased to 1.68%. Despite a slight quarterly decline in net interest income, the common equity tier 1 ratio increased to 16.1%, and liquidity ratios, including the LCR and NSFR, also rose. Loans to households and non-financial corporations saw a slight increase, while sovereign exposures rose significantly, driven by an increase in fair-value recognized exposures and shorter-term maturities. The non-performing loan (NPL) ratio remained stable at 1.9%, with variations across segments.

Release date: 2024-09-20

<u>Q2 2024</u>



BRRD SRB (Report)

Third assessment of EU banks' resolvability

The SRB has published its third assessment of banks' resolvability within the Banking Union, noting significant progress in crisis readiness. By the end of 2023, most banks had met their MREL requirements, with only a few exceptions. The report highlights banks' advancements in addressing liquidity, funding, separability, and restructuring challenges.

Release date: 2024-07-09

srb.europa.eu

BRRD EBA (Report)

MREL Dashboard

The EBA has published its Q4 2023 quarterly dashboard on MREL, revealing that most of the 333 EU/ EEA banks earmarked for resolution comply with MREL requirements set by the BRRD for January 1, 2024. However, three banks reported technical shortfalls, and 23 banks received deadline extensions. As of December 31, 2024, 307 banks met their MREL targets. The dashboard noted EUR 207 billion of MREL instruments maturing by the end of 2024, representing 18.1% of eligible instruments.

Release date: 2024-07-02

Q42023

Supervision EBA (Report)

List of Other Systemically Important Institutions

The EBA has published an updated list of other systemically important institutions (O-SIIs) identifying 178 banks as systemically important in 2023. The assessment, which considers size, importance, complexity, and interconnectedness, remains under the remit of national authorities. The list ensures a comparable assessment across the EU while allowing for supervisory judgment to include other significant institutions.

Release date: 2024-07-11

eba.europa.eu

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Supervision EBA (Report)

Identification of global systemically important institutions (G-SIIs)

The EBA has updated the 13 systemic importance indicators for the 33 largest EU institutions, with the inclusion of one additional institution for the first time. These updates, based on end-2023 data, help identify global systemically important institutions (G-SIIs), which are crucial for financial stability. Key findings include a 1.3% increase in total exposures, with significant rises in Securities Outstanding (14.9%) and Level 3 Assets (12.6%). The EBA provides user-friendly tools for data access, supporting transparency and alignment with global standards set by the Basel Committee and Financial Stability Board.

Release date: 2024-08-27

eba.europa.eu



Climate Risk

Climate Risk NGFS (Report)

Acute physical impacts from climate change and monetary policy

The NGFS has published a report on the "Acute physical impacts from climate change and monetary policy," highlighting how rising global temperatures and increased extreme weather events are affecting the macroeconomy. Central banks are facing challenges as these climate-related events impact both supply and demand, influencing output and inflation. The report provides a framework for central banks to prepare for these impacts, emphasizing the need for a deeper understanding of how climate change affects economic stability and monetary policy.

Release date: 2024-08-29

ngfs.net

Data Management

Supervision ECB (Opinion)

Regulation on a Framework for Financial Data access

The ECB has issued an opinion on a proposed regulation regarding a framework for financial data access. The ECB supports the regulation's objective but suggests several amendments. It seeks clarification on the exclusion of data shared through the AnaCredit Regulation's feedback loop mechanism from customer access under the proposed regulation. Additionally, the ECB requests a clarification of its role under the regulation, expressing concern over assigned supervisory tasks that are not prudential but rather related to consumer protection.

Release date: 2024-09-03

ecb.europa.eu

Climate Risk NGFS (Report)

Improving Greenhouse Gas Emissions Data

The NGFS has published an information note on improving greenhouse gas (GHG) emissions data, addressing gaps in the availability, quality, and comparability of climate-related data. The note highlights challenges in measuring and collecting GHG emissions data and proposes measures to enhance data granularity and comparability. Key recommendations include harmonising reporting metrics, encouraging coordination between supervisors and government agencies, and intensifying collaboration across public bodies, financial institutions, and businesses.

Release date: 2024-07-16

<u>ngfs.net</u>

Governance

Supervision ECB (Consultation)

Consultation on governance and risk culture

The ECB has launched a public consultation on its new draft Guide on governance and risk culture. This Guide, replacing the 2016 SSM supervisory statement, sets out supervisory expectations for banks' governance and risk culture, focusing on diverse and effective management bodies. The Guide clarifies expectations for management bodies and committees, internal control functions, risk culture, and risk appetite frameworks. It draws on recent updates from the EBA and provides good practice examples.

Release date: 2024-07-24 Consultation End: 2024-10-16







ARTICLE

Where Z1 and Z2 represent the systematic and idiosyncratic factors, respectively. As the market factor in the Vasicek equation is assumed to follow the standard normal distribution, the mean, and the standard deviation of it is equal to 0 and 1 respectively, thus the mean for PiT PD will be equal to

 $k/\sqrt{2}$

and the standard deviation is equal to

 $\frac{\sqrt{1-1}}{1-1}$

These two equations can be solved to derive the correlation and threshold (k).

2. Direct moment approach: In this approach, the first (m1) and second moments (m2) of default rates are used, which are the expected values such as m1 = E(X), $m_2 = E(X)^2$, and so on, to estimate the correlation coefficient (ρ) between default events of different assets. This correlation coefficient tells us how intricately linked these default events are. The equation of this is given by



where T is the total number of observations. Next, the likelihood function is being used to make sense of these moments and estimate ρ more precisely. This equation calculates the likelihood of observing the default rates given a certain correlation coefficient (ρ) and default probability (p) i.e., quantifying how well the model fits the observed data. The likelihood equation is given by



where p1 and p2 are the observed default frequency and the PD respectively, and where the PD is calculated as

 $(\sqrt{1-\rho})$

By adjusting the correlation coefficient (ρ) and the default probability (p), we try to maximize the likelihood of our observed data. This optimization process helps us find the best-fitting values for correlation (ρ) and default probability (p).

Enhancing PD Estimation under IFRS 9: A Detailed Exploration of the Z-Score Approach

Written by Prashant Dimri, Consultant.

This paper discusses the Z-score methodology, a robust framework for estimating the Probability of Default (PD) at portfolio and pool levels, aligning with IFRS 9 standards. IFRS 9 introduces a structured framework for estimating expected credit losses (ECL) across three stages: Stage 1 (1-year ECL), and Stages 2 and 3 (lifetime ECL). Z-score methodology calculates worst-case default rates (WCDR) based on asset correlation (ρ), market factor (Z), and threshold (k) values using the Vasicek formula. This paper explores the range of applications for the Z-score methodology at portfolio and pool levels, while also discussing various methods for calculating asset correlation used in the Vasicek formula.

Z-score methodology

Portfolio level

At the Portfolio-level, the assessment begins with the calculation of worst-case default rates (WCDR) using the Vasicek formula, a widely accepted approach in financial risk modelling. This formula requires the inputs such as asset correlation (p), market factor (Z), and threshold (k) values to derive WCDRs, which serve as foundational metrics in assessing credit risk. The main trick for an appropriate Z-score methodology implementation is the estimation of the asset correlation (p) and there are multiple methods that can be utilized for this purpose:

1. Indirect moment approach: The Vasicek formula for point in time (PiT) PD estimation is defined as:

$$\frac{k{-}\sqrt{\rho}{*}Z}{\sqrt{1{-}\rho}}$$

which is derived from the one factor copula model with the equation

$$pZ_1 + \sqrt{1-\rho} * Z_2$$

46 -

$$\overline{1-\rho}$$

$$\frac{\overline{\rho}}{\sqrt{\rho}}$$

$$-\frac{m_1^2}{T^2}$$

$$\frac{2}{2 \cdot \rho} \cdot \frac{p_1 \cdot p_2 + p_2^2}{2 \cdot \rho} \right)$$

$$(m_1)/T$$

3. Vasicek probability density function: Another approach to modelling probabilities is the Vasicek density function. This function is derived using the formula



where the density is calculated based on the observed and the average default rates, denoted as m_1 and m_2 respectively in the formula. In this, the parameter correlation (p) represents an optimization parameter, adjusted to maximize the sum of log-likelihoods.

Consequently, the market factor (Z) is calculated as

$$\frac{k - PiTscore * \sqrt{1 - \rho}}{\sqrt{\rho}}$$

where PiT score is the inverse standard normal distribution of default rates. Hence, it can be said that the WCDR is transformed into Z-scores, representing the PiT market factor. These Z-scores capture deviations from the mean default rate and provide insights into the relative creditworthiness of the portfolio. Through regression analysis with the macroeconomic variables, such as GDP growth, interest rates, unemployment rates, etc., these Z-scores can be forecasted, thus giving forecasted unconditional PDs eventually for different years. This regression analysis enables financial institutions to model the impact of economic fluctuations on credit risk and anticipate potential shifts in default probabilities over time (see '<u>A PRACTICAL APPROACH TO PREDICTING THE IFRS9 MACROECONOMIC FORWARD-LOOKING PD</u>".)

Pool level

Conversely, at the pool/rating grade level, the Z-score methodology requires deciphering transition probabilities between different states, such as S₁, S₂, and S₃. These transition probabilities reflect the likelihood of borrowers transitioning between credit states over a specified time horizon. By leveraging historical data and optimization techniques, financial institutions can calibrate these transition probabilities to current market conditions and future economic outlooks. The culmination of these analyses is the estimation of marginal PiT PDs, which encapsulate the projected default probabilities for each period within the loan lifecycle.

Consider the example Table1 below, where migration probabilities are defined for transitions between credit stages, such as from S₁ to S₁, S₂, and S₃. These probabilities illustrate the likelihood of borrowers moving between credit states and let us say these are TTC (through the cycle) or average transitional probabilities.

Transition probability	S ₁	S ₂	S_3
S ₁	89%	8%	3%



To understand the distribution of probabilities across various stages, a probability distribution graph is constructed as below (Graph1). This graph provides insights into the relative frequencies of transitions.



Using the provided probabilities, the upper and lower bounds are calculated as thresholds in the Vasicek formula. So, these thresholds (k) along with correlation (ρ) and market factor (Z) yield the worst-case PiT PD matrix which can be termed as fitted migration matrix herein. In short, TTC PD will get transformed into PiT PD with this formula.

Using an optimization engine such as Solver, Z and ρ are recalibrated in such a manner that the difference between actual PiT migration matrix and fitted migration matrix is minimized. This same exercise can be done for different years with different correlation values, and as such, this will yield the specific Z value for each year and eventually yield the time-series of Z.

This is an iterative process which can be done using VBA (Visual basic) or any other programming language. The other condition for this optimization problem is that ρ (correlation) should be calibrated to ensure that the variance of the Z series equals 1. Once the Z-series are established, they are regressed against macroeconomic variables to forecast future Z values. These Z forecasts, along with the upper and lower bounds and the ρ value, inform the calculation of transitional probabilities for various stages.

To adapt the methodology for pool-level modelling, adjustments might be needed for additional states such as write-off. Hence, the transitional probability table should be modified to ensure normalization, i.e., a sum of each row equal to 100%. The example below with Table 2 shows 3 distinct stages (1, 2 and 3) along with the write-off stage. The migration from S₁ to S₁, S₂ and S₃ for different forecasted years can be seen. For Stage 3 accounts, write-off is considered as well.

	S1			S2			S3			
Year	S1	S2	S3	S1	S2	S3	S1	S2	S3	Write-off
2024	95.20%	4.20%	0.70%	27.70%	69.70%	2.60%	3.40%	19.00%	77.60%	
2025	89.89%	8.10%	2.02%	16.00%	77.84%	6.16%	1.22%	10.45%	83.33%	5.00%
2026	89.08%	8.68%	2.25%	14.94%	78.34%	6.72%	1.09%	9.75%	84.16%	5.00%
2027	89.30%	8.52%	2.18%	15.22%	78.21%	6.57%	1.12%	9.93%	83.95%	5.00%
2028	89.51%	8.37%	2.12%	15.50%	78.08%	6.42%	1.16%	10.12%	83.72%	5.00%

Table 2

48

The derived conditional PDs for the 3 distinct stages from the migration matrix are then converted into unconditional PDs. This step is essential for incorporating PDs into the final Expected Credit Loss (ECL) calculation. While migration probabilities are commonly used for the pool level PD estimations, there are different granularity levels in practice for the definition of pools/segments (e.g., Days Past Due (DPD) buckets, ratings, etc.) (See: IMF working paper).

Conclusion

The Z-score methodology provides a comprehensive framework for estimating the Probability of Default (PD) at both portfolio and pool levels, offering alignment with IFRS 9 standards. By leveraging the Vasicek formula, financial institutions can derive worst-case default rates (WCDR) and transform them into Z-scores for forecasting marginal PDs through regression analysis with macroeconomic variables. This approach not only facilitates accurate portfolio-level credit risk assessments but also optimizes transition probabilities at the pool level to derive marginal PiT PDs. Furthermore, through various methods for calculating asset correlation, the Z-score methodology enhances the precision of credit risk modelling, supporting robust and forward-looking ECL estimations as required by IFRS 9.





Insurance

pp. 54-55	Insurance Regulatory T
p. 56	Supervision
p. 57	Risk Management
p. 57	Market Environment
pp. 58-63	Article: Climate change
	ORSA



Timeline

ge risk management: Lessons learned from

Insurance Regulatory Timeline

2024 Q4 Solvency II

Draft RTS

The reassessment of the Natural Catastrophe risk standard formula capital charges Document release: tbd

Draft RTS

Include Reporting on Climate change risks in Solvency II reporting disclosure Document release: tbd

Guidelines

Development of a Proportionality Rulebook Document release: tbd

ICS

International Standards Planned adoption of ICS Adoption Date: 24 Dec 2024

Insurance Supervision

Regulatory Review Review of EIOPA Guidelines on Supervisory Review Process (SRP) Document release: tbd

Document release. thu

Insurance Supervision Regulatory Review

Further develop EIOPA's approach on public disclosure of the handbook Document release: tbd

Peer Review

On supervision of technical provisions (TP): stochastic valuation Document release: tbd

Report Prepare Annual Report on PEPP Market Document release: tbd

IORP

Guidelines On the liquidity risk management of IORPs Document release: tbd

Report On roundtable on defined contribution pensions Document release: tbd

Insurance Stress Testing

Guidelines On Climate Stress Testing Document release: tbd

2025 Q1

Solvency II Guidelines On Climate Stress Testing Document release: tbd

Technical Advice On the delegated regulation of Solvency II as regards to Proportionality and Central Counterparties Document release: tbd

2025 Q3

SFDR Report

Joint ESAs report under article 18 of the SFDR for voluntary reporting standards Document release: tbd

IORP Opinion

On the liquidity risk management of IORPs Document release: tbd

Insurance Supervision Report

Annual Insurance Sector overview report Document release: tbd Guidelines

On Supervisory Review Process (SRP) Document release: tbd

2025 Q4

Solvency II Report Follow-up on the survey to NCAs regarding EIOPA's opinion on climate change scenarios in the ORSA Document release: tbd

Dashboard Annual Internal Models Dashboard Document release: tbd

Policy

Development and annual update of RFR based on the Methodological Policy, covering representative portfolios, transparent criteria, and the ultimate forward rate Document release: tbd

Report On use of reinsurance for NCAs Document release: tbd

ITS

Update of the draft ITS on ECAI mapping for CRR and Solvency II Document release: tbd

Report On the Prudential Treatment of ESG factors Document release: tbd

RTS On the exceptional sectorwide shocks Document release: tbd

Insurance Regulatory Timeline

RTS

RTS

valuations

2031

Report

Solvency II

implementation

Document release: tbd

Document release: tbd

Document release: tbd

IDD

Report On the application of the IDD Document release: tbd

Insurance Supervision

Report Financial Stability Report Document release: tbd

Report Insurance Risk Dashboard Document release: tbd

Report IORP Risk Dashboard Document release: tbd

Report Joint Report on Risks and Vulnerabilities Document release: tbd

Report Annual Supervisory Convergence Plan 2026 Document release: tbd

Insurance Stress Testing

Stress Test 2025 EU-wide IORP stress test exercice Document release: tbd

2026

Solvency II

Assessment Assessment of the prudential treatment under Solvency II of adaptation measures in Nat Cat insurance Document release: tbd

2028

IRRD

Directive Beginning of the implementation of the IRRD Document release: tbd Further specifying the information that an insurance or reinsurance undertaking is to include in the pre-emptive recovery plan, including the remedial actions and their

On the methodology for calculating the buffer for additional losses to be included in provisional

treatment of related credit institutions in the group Solvency Capital Requirement

Supervision

IORPII EIOPA (Consultation)

Supervision of liquidity risk management of IORPs

The EIOPA has published a consultation seeking feedback on proposed measures to strengthen the supervision of occupational pension funds' liquidity management. The proposal aims to protect pension fund members and beneficiaries by enhancing convergence in oversight. The draft opinion focuses on the risk of margin calls and other liquidity issues associated with derivative instruments used by pension funds. It encourages a riskbased approach where supervisors assess IORPs' liquidity risks, their ability to manage these risks, and ensure that IORPs exposed to material liquidity risks comply with key principles, such as stress testing cash flows, creating contingency plans, and maintaining a buffer of liquid assets.

Release date: 2024-09-26 Consultation End: 2024-12-24

EIOPA-BoS-24-318



Supervision

IAIS (Consultation Paper)

Climate Risk Supervisory Guidance

The IAIS has initiated a public consultation on climate risk supervisory guidance with the aim to enhance global insurance supervision by incorporating climate risk into guidance on Insurance Core Principles. It includes a draft Application Paper on climate risk public disclosure and supervisory reporting, and draft supporting material on macroprudential and group supervisory issues.

Release date: 2024-07-15 Consultation End: 2024-19-30

iaisweb.org



Solvency II EIOPA (Technical Document)

Updated technical RFR documentation applicable as of January 2025

The EIOPA has published a document updating its technical documentation for calculating risk-free interest rate term structures. The changes focus on the assessment of currencies and financial instruments used to construct the RFR information. Starting January 1, 2025, the EIOPA will no longer publish technical information for 11 non-EEA currencies as they are not considered material to the EU insurance sector. The updated RFR documentation will become applicable on January 1, 2025, with the first calculation based on it occurring at the end of January 2025. Until the end of 2024, the current version will remain in effect.

Release date: 2024-09-25

eiopa.europa.eu



Risk Management

Solvency II EIOPA (Consultation)

New proportionality regime under Solvency II

The EIOPA has launched a public consultation on implementing a new proportionality framework under Solvency II. This framework aims to reduce regulatory requirements for small and non-complex insurers and potentially for other insurers with low risk profiles. The consultation seeks feedback on how to classify small and non-complex insurers and the conditions for granting reduced requirements to others. The EIOPA's suggestion is a balanced approach using both quantitative and qualitative criteria.

Release date: 2024-08-02 Consultation End: 2024-10-25

EIOPA-BoS-24-293



Market Environment

IORPII EIOPA (Report)

IORP Risk Dashboard

The EIOPA has published its risk dashboard for IORPs, highlighting high exposure to market and asset return risks due to the market volatility and vulnerabilities coming from the real estate. The report also notes improvements in IORPs' portfolio performance and stable reserve and funding risks, while pointing out increasing risks related to digitalisation and cybersecurity.

Release date: 2024-07-29

EIOPA-BoS-24-278



Solvency II/EMIR EIOPA (Consultation)

Capital Treatment for Central Clearing Counterparties

The EIOPA has published a consultation paper seeking public feedback on how to treat insurers' direct exposure to CCPs within the standard formula for capital requirements. Currently, Solvency II only addresses indirect exposure through clearing members. Direct exposures are treated as bilateral, resulting in higher capital requirements. The EIOPA proposes three options:

- No change to the current regime.

- Extending the treatment of indirect exposures to direct exposures.

- Aligning the treatment of default fund contributions with the Capital Requirements Regulation, which is the EIOPA's preferred option.

Release date: 2024-07-31 Consultation End: 2024-10-23

EIOPA-BoS-24-285

ARTICLE

Climate change risk management: lessons learned from ORSA

Written by Evelyn McNulty, Managing Consultant

As guarter four begins, most (re)insurers will have completed their ORSA process for the 2024 cycle. This has been the second annual ORSA cycle since EIOPA began to monitor the application of its Opinion on the supervision of the use of climate change risk scenarios in ORSA ("EIOPA's ORSA Opinion") in April 2023. Finalyse has been on the journey with some of our clients, assisting them with integrating climate change risk into their risk management framework and documenting the process and conclusions for their ORSA. In this article, we reflect on what we have experienced and how things have settled, two ORSA cycles on. The future state of the climate and knock-on climate-related impacts on the economy is an area of extreme uncertainty. Fulfilling the ORSA requirements has not been an easy task for any insurer, particularly when it comes to assessing climate change scenarios. EIOPA released their application guidance paper in August 2022 which included some practical examples of how this could be done. There is consensus that climate change can increase insurance underwriting risk, negatively impact asset values, and challenge business strategies. The industry is already seeing an uplift in claims linked to extreme weather events and this is generally expected to increase. For many insurers, however, the C-suite is still debating to what extent this is material for their business.

Climate change scenarios for insurers

Many insurers made use of the Network for Greening the Financial System (NGFS) and Intergovernmental Panel on Climate Change (IPCC) climate and economic projections when creating climate change stress scenarios for their ORSA. These were referenced in EIOPA's application guidance. In many cases, the results of the calculations became a barrier to drawing attention to the threat of climate change risk from the Board of Management and C-suite. The financial impacts of these scenarios on the investment portfolios of EU-based insurers have turned out to be relatively mild.

We can see a similar message in the results from the 2023 insurance stress tests by France's Autorité de Contrôle Prudentiel et de Résolution (ACPR), published in May 2024 . ACPR developed two long-term stress scenarios based on the Below 2°C and Delayed Transition scenarios from the NGFS Phase III update. The projected macroeconomic and financial assumptions are based on the NGFS output. One of the IPCC pathways, RCP 4.5 from AR5, was used to derive acute physical risk impacts.

Chart 40: GDP change trajectories according to the two scenarios retained by the ACPR





The assumptions run up to the year 2050 and the GDP impacts are up to -3.3% in Europe by 2050. Assumptions for associated investment stresses and insurance hazards are provided by ACPR for various sectors and regions.

The cumulative balance sheet result across all participants was a 3.0% and 3.5% decrease in total assets in 2050 in the Below 2°C and the Delayed Transition scenarios, respectively, versus the baseline 2050 projected result.



Source: ACPR Banque de France, Main results of the climate exercise for the insurance sector⁵

58

Source: ACPR Banque de France, Main results of the climate exercise for the insurance sector

The projected value of claims by 2050 is higher under the adverse acute physical risk assumptions, particularly for NatCat claims which are 42% or €1.35bn higher relative to the baseline 2050 projected result. Claims on other lines of business including life and health are projected to increase also, albeit to a lesser extent. However, projected loss ratios are maintained at a relatively stable level across the projection because insurance premiums can be increased in response to increasing claims. The ACPR also performed some analysis on the decrease in demand for insurance as the insurance premiums increase which is another area of uncertainty, and governments are eager to understand the climate protection gap.

Many insurers experienced similarly mild impacts when running their internal scenarios derived from the NGFS and IPCC data. Many determined that such low-level impacts do not indicate a need to alter investment strategies or justify investment of resource to investigate further. Investing scarce resources to run such complex and long-term projections only to see such mild results left many insurers feeling that this was a fruitless labour.

Perhaps projecting the balance sheet and business plan over several decades is not the most practical nor efficient approach for insurers to follow when investigating their resilience and vulnerabilities. I believe that companies learn as much about the threats by testing stresses over the ORSA projection period of three to five years. The ACPR saw the value in including a more severe short-term stress scenario in their 2023 exercise also. It is a 5-year scenario involving impacts from extreme weather in France followed by a transition-related market shock, as consumers' awareness of the threat becomes heightened. The NGFS announced in 2023 that they plan to develop five short-term stress scenarios in future.

These short-term assumption sets will likely become the favoured basis for insurers' ORSA scenarios in future. They fit better with the ORSA timeline and give insurers an assumption set with some scientific backing, rather than insurers having to derive their own.

Climate models – do end users understand the assumptions?

Another point to consider is whether the mild impacts resulting from the long-term scenarios are due to the fact that the severity of the climate impacts is underestimated in the underlying climate model output. Also, whether the models used to translate the climate changes to impacts on economic variables are realistic. Are we at risk of end users of climate projections placing too much reliance on a low-impact result, without understanding the underlying uncertainty?

These sentiments are echoed in two recent papers from the UK's Institute and Faculty of Actuaries (IFoA), The Emperor's New Climate Scenarios and Climate Scorpion - the sting is in the tail . Both papers were written in collaboration with the University of Exeter and are well worth reading. They bring several important points to the fore including the fact that the earth systems models, climate impact models, and economic models used to create scenarios like those from NGFS are built on assumptions about many important factors. It is unlikely that these assumptions are all correct, in fact, we appear to be seeing extreme weather at much lower temperature deviation than projected. These IFoA papers point out that negative climate tipping-points are not likely to be adequately allowed for in the scenarios, since damage functions are based on historical data, which makes the results artificially low.

These IFoA papers also remind us that one of the core purposes of enterprise risk management is to assess the extreme, tail events that could result in large losses and test the robustness of the organisation. Publicly available scenarios tend to be built around the average result across the range of underlying models. For example, we see in the below illustration the range of projected results (orange and light blue areas) around the average result (solid orange and blue lines) for two of the pathways in the IPCC AR5 report. The ACPR scenarios use the solid line pathway, the average result.



Source: IPCC AR ⁵ Synthesis Report: Climate Change 2014 Synthesis Report ⁸

For an ORSA scenario, insurers should not be only assessing results from the average or best-estimate projection. The Climate Scorpion paper highlights the point that climate change has shifted the distribution of weather events, meaning that what was once a tail risk is currently close to an average expectation. For example, what was once a 1-in-100 year flood event could now be a 1-in-5 year event.



Source: Institute and Faculty of Actuaries, University of Exeter, Climate scorpion – the sting is in the tail 7

- 60 -

This is the type of forward-looking consideration that insurers are asked to incorporate into their scenarios by regulatory bodies. The climate change scenarios need to consider what stressed future state of frequency and severity of events, and stressed transition measures could materialise. Those communicating results of calculated scenarios also have the responsibility to make sure the users of the information understand the high level of uncertainty in the results. It should be made clear that it is highly unlikely that the assumptions and data underlying the financial results have taken adequate account of the range of potential risks.

Setting the baseline outlook for longterm strategy and planning

In our experience, one key exercise at the outset of an ORSA cycle should be establishing a baseline climate change scenario. Insurers should already be allowing for the effects of climate change in their business plan because the industry is already experiencing impacts. For a baseline scenario, using the assumptions in the long-term publicly available "average" scenarios could be considered reasonable – it is a baseline rather than a stress.

The process should involve getting various senior stakeholders in a room to discuss, debate, and approve a baseline for the ORSA projection period and for longer term strategic planning. This fosters ownership of the assumptions and the corporate strategy for facing climate change. It also helps prevent group-think and disagreement later in the process, after stressed scenario assumptions are set or after the modelling teams have calculated the impacts. These conversations and debates should be had early, and at senior levels, including at Board meetings. Under Solvency II, the Board has ultimate responsibility for the management of risks and for compliance with regulation – they must be comfortable with the chosen approach.

A proportionate and risk-based approach

Another point that stands out from our experience is that the approach taken varies significantly depending on the organisation. This is mainly driven by proportionality considerations regarding the materiality of climate change risk for their portfolio and the nature, scale, and complexity of their risk profile. Clearly, a reinsurer with significant natural catastrophe risk in a multitude of global regions will have a sophisticated climate change risk management process. A unit-linked life insurer in northern Europe could justify taking a more simplified and qualitative approach.

The risk management approach should be proportional and pragmatic. The reality is that insurers have to spread their limited resource across many competing tasks. The purpose of climate change risk regulation is not to burden insurers unnecessarily with disproportionate costs. This is made clear in EIOPA's Opinion1 paper from 2021, where it states "the speed of evolution as well as the scope and granularity of quantification is proportionate to the size, nature and complexity of undertakings' climate change risk exposures".

Insurers may decide to perform a point-in-time stress to their year-end balance sheet, in order to assess the stressed solvency ratio. Others will opt to run a one-year stress, perhaps using proxy-models or simplified approaches to scale forward the results over the ORSA projection period. Others may have large modelling teams, sophisticated NatCat models and ALM models, and perform many scenarios to test their business plan and balance sheet. There is value in all types of approach if the results help the insurer understand the potential risk and the need for management actions to be defined and documented.

Remembering the shared mission

When we get caught up in debating the future climate and trying to calculate impacts, it is important to take a step back and remember the core purpose. Many regulatory bodies state a twofold mission with regards to climate risk. One key objective is to increase awareness of the threats and vulnerabilities within the insurer, across all lines of defense, with the aim of improving the stability of the financial system in an uncertain future. The other is to pave the way for funding the low-carbon transition and links to the concept of double materiality.

Transition and adaptation to ensure financial market stability are large-scale challenges and are beyond the scope of any single insurer. They are more so challenges for governments and central banks to grapple with. That said, insurers must be in a position to provide the protection they have promised to their policyholders. Insurers must contribute to the climate-resilience mission by building an understanding of the risks they face and investing sustainably.

Finalyse has gained significant experience in the establishment of climate risk management frameworks and ORSA integration. This stretches from qualitative to quantitative assessments, modelling climate risks by leveraging IPCC scenarios and the Inter-Sectoral Impact Model Intercomparison Project (ISIMIP) projected datasets, which are based on IPCC scenario pathways. We are poised to help you with your climate change analysis. Please reach out to us if you would like to discuss any of the points raised here or any other questions you have on climate change risk.

HOW CAN FINALYSE HELP YOU?

Our team of talented insurance professionals can support you in various areas:

- roadmap for integration, and updating relevant policies and procedures.
- assumptions.
- approach for the short and long term.
- submission.
- Strategy and business planning to incorporate climate change considerations, including possible



• Risk Management integration for climate change risks, including performing a gap analysis, developing a

 Climate risk identification and materiality assessment on your asset and liability portfolios, defining data requirements, performing the materiality assessment, and hosting workshops to facilitate the process.

• Climate change scenario definition in line with regulatory requirements, including setting the highlevel narratives and climate pathways, and defining more granular demographic and macroeconomic

Modelling and impact quantification to translate climate projections into financial and underwriting impacts, including the mapping of climate risks to traditional prudential risks, and deciding on the modelling

Regulatory Stress Tests: Support with performing the stress tests and balance sheet projections, guantifying climate-related financial impacts, and preparing all the necessary documentation and templates for

management actions, business model changes, and identifying future opportunities and product innovation. Benchmarking on topics such as the use of qualitative vs. quantitative assessments, simplified projection options and publicly available tools, and providing insight from our dealings with EIOPA and local regulators.



Asset Management

p. 66	Asset Management
p. 67	Supervision

Regulatory Timeline

Asset Management Regulatory Timeline

2024 Q3

2024 Q2

EMIR ITS

Formats, Frequency and Methods and Arrangements for Reporting Application date: 29 Apr 2024

RTS

Procedures for the Reconciliation of Data Between Trade Repositories Application date: 29 Apr 2024

RTS

Minimum Details of the Data to be Reported - EMIR REFIT Application date: 29 Apr 2024

RTS

Deferred Date of Application for Non-centrally Cleared OTC Derivatives Which are Single-Stock Equity Options or Index Options

Application date: 29 Apr 2024

MiCA

Guidelines And technical standards Application date: 29 Apr 2024

IFR

Guidelines On calculation of K IRB for dilution and credit risk Document release: tbd

MiCAR

Guidelines EBA guidelines on Stress Testing under MiCAR Document release: tbd

MiCA

Report On potential ways of regulating NFTs Document release: tbd

Regulation Most of the provisions of MiCA Application date: tbd

2025 Q1

Covered Bonds Directive

Q&As Q&A on credit risk, large exposures, and securitisation and covered bonds Document Release: tbd

2025 Q2

EMIR

Directive Margin requirements to apply to intragroup transactions Application Date: 30 June 2025

EMIR

Directive Clearing Obligations to apply to intragroup transactions Application Date: 30 June 2025

IFD

Report On the appropriateness of remuneration provisions in IFD Document release: tbd

— 66 —

Assessment On the initial margin models under EMIR

2026 Q2

AIFMD2

Directive Application of the new Amending Directive Application Date: 16 April 2026

Supervision

AIFMD/UCITS ESMA (Consultation)

Liquidity Management Tools for Funds

The ESMA has initiated a consultation on draft guidelines and technical standards for liquidity management tools under the revised AIFMD and the UCITS Directive. These drafts aim to mitigate financial stability risks and promote harmonization of liquidity risk management. The proposed rules aim to make the EU framework for investment funds more resilient and efficient. The final RTS and guidelines are expected by 16 April 2025.

Release date: 2024-07-08 Consultation End: 2024-10-08

ESMA34-1985693317-1095



EMIR

2025 Q4

Document Release: tbd





Cross sector

p. 70	Cross-sector Regula
p. 72	Supervision
p. 72	Market Environment
р. 73	Climate Risk
р. 73	Reporting & Disclosu



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69

Cross-sector Regulatory Timeline

2024 Q4

Sustainable Finance

Report Pillar I report on sustainable Finance Document release: tbd

Thematic Review To be aligned with supervisory expectations, including integration of C&E risks in stress testing framework and ICAAP

Application date: 31 Dec 2024

2025 Q1

Sustainable Finance

Delegated Regulation The Commission to include crypto-asset mining in the economic activities that contribute to climate change mitigation Application date: 1 Jan 2025

2025 Q3

Sustainable Finance

Guidelines On minimum standards and reference methodologies for the identification, measurement, management and monitoring of ESG risks Document Release: tbd

Covered Bonds Directive

Q&As Q&A on credit risk, large exposures, and securitisation and covered bonds Document Release: tbd



Supervision

EMIR ESMA (Report)

CCP Stress Test Report

The ESMA has published the results of its fifth stress test for CCPs, confirming the resilience of EU and third-country Tier 2 CCPs to core credit and liquidity risks. This year's test included climate risk analysis, additional market stress scenarios, enhanced model risk assessments for concentration, and extended reverse stress tests.

Release date: 2024-07-09

ESMA91-1505572268-3627

Market Environment

Market Trends ESAs (Report)

Risks and vulnerabilities in the EU financial system

The ESAs have published their Autumn 2024 JC Report, highlighting ongoing economic and geopolitical uncertainties as key risks to EU financial stability. The report calls for vigilance from all financial market participants and features a firsttime analysis of credit risks across the financial sector. The report notes that while inflation has declined and central banks are shifting towards looser monetary policy, considerable uncertainties remain regarding the global economy, inflation, and monetary policy. Geopolitical events, such as the war in Ukraine and elections in the EU and US, could cause sudden shifts in economic outlook and market expectations.

Release date: 2024-09-10

<u>JC202465</u>

CSDR ESMA (Consultation)

Rules to Recalibrate and Clarify the CSDR Refit

The ESMA has launched consultations on the CSDR Refit, addressing information requirements for EU and third-country CSDs and the scope of settlement discipline. The draft rules aim to harmonise information sharing for EU CSD reviews, streamline notifications for third-country CSDs, and clarify the causes of settlement fails.

Release date: 2024-07-09 Consultation End: 2024-10-09 esma.europa.eu



Market Trends ESMA (Report)

Risk Monitoring Report

The ESMA has published its second risk monitoring report which shows increasing market sensitivity after some strong performance in early 2024. Despite initial optimism and lower volatility, recent developments highlight existing vulnerabilities, particularly to interest rate changes, credit risks, and political events. The equity markets experienced a dip early August, reflecting growing economic and political concerns. The ESMA also highlights the importance of close monitoring and coordination with national authorities, noting risks in fund liquidity, especially in real estate, and the declining quality of corporate debt.

Release Date: 2024-08-29

ESMA50-524821-3444



Climate Risk

SFDR ESAs (Q&A)

Updated Q&As about the SFDR

The ESAs have published an updated version of their consolidated Q&A on the SFDR and the SFDR Delegated Regulation. The ESAs address several new questions, including (1) whether registered AIFMs must establish websites to comply with Article 10 of SFDR, (2) disclosures under Article 6(1) do not exempt other EU sustainability obligations, (3) the 500-employee threshold applies to both EU and non-EU entities within a group, (4) the PAI indicator 4 should consider any fossil fuel sector activity, (5) currency conversions to EUR should follow specific guidelines, and (6) sustainable investments can include investments in other financial products like UCITS funds.

Release date: 2024-07-26

<u>esma.europa.eu</u>



Climate Risk NGFS (Report)

Nature Related Risk

The NGFS has published two reports on nature-related risks. The first report, the final version of the Conceptual Framework for nature-related financial risks, aims to guide central banks and financial supervisors in managing these risks. The second report highlights trends in nature-related litigation, covering issues like biodiversity loss and deforestation, and its relevance for the financial sector.

Release date: 2024-07-02

<u>ngfs.net</u>



SFDR ESMA (Opinion)

Long-term Vision On The Functioning of The Sustainable Finance Framework

The ESMA has published an Opinion on the EU Sustainable Finance Framework, recommending potential long-term improvements. The Opinion acknowledges the Framework's existing strength, but proposes further development to enhance investor access to sustainable investments and streamline the Sustainable Investment Value Chain. This Opinion builds on previous ESMA reports on greenwashing and the SFDR review. It represents the final component of ESMA's response to the European Commission's request for greenwashing-related input.

Release date: 2024-07-24 ESMA36-1079078717-2587

Reporting & Disclosure Supervision

ESMA (Consultation)

Periodic Reporting

The ESMA has initiated a consultation on proposed guidance for Benchmark Administrators, CRAs, and three types of Market Transparency Infrastructures (Securitisation Repositories under SECR, Trade Repositories under EMIR/SFTR, and Data Reporting Service Providers under MiFiR). The Consultation Paper outlines the information the ESMA expects and the timeline for submission. The Draft Guidelines aim to ensure a harmonised approach to periodic reporting, enhance consistency and usability of information, establish proportionate reporting based on risk profiles, and reduce the reporting burden by tailoring frequencies to a risk-based supervisory approach.

Release date: 2024-07-08 Consultation End: 2024-10-18

ESMA84-2037069784-2169



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